



Consortium of Operative Dentistry Educators (CODE)

Annual National Report: Regions I - VI

Prepared by:

Gary L. Stafford DMD – National Director

gary.stafford@mu.edu

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National Director's Update

On a regional and national level, 2018 was a good year for the Consortium of Operative Dentistry Educators. At the 2018 CODE Annual National Meeting, which is held in conjunction with the Academy of Operative Dentistry's Annual Meeting, Dr. Taiseer Sulaiman delivered a presentation on *Light Curing and Its Importance in Pre-clinical Education*. Dr. Sulaiman is the Director of Biomaterials and Biomimetics at the University of North Carolina School of Dentistry and represented Region VI.

Collecting our annual dues in a timely fashion remains a challenge, but with the assistance of the regional directors, our overall response rate was good. With 2017 as a comparison, the breakdown of participation in CODE on a regional and national level is as follows:

Region	2018 US Schools	2018 Canadian Schools	2017 US Schools	2017 Canadian Schools
I – Pacific	13/13 = 100%	2/2 = 100%	13/13 = 100%	2/2 = 100%
II – Midwest	8/9 = 89%	1/2 = 50%	8/9 = 89%	2/2 = 100%
III – South Midwest	7/7 = 100%	N/A	7/7 = 100%	N/A
IV – Great Lakes	9/10 = 90%	1/1 = 100%	8/10 = 80%	1/1 = 100%
V – Northeast	11/14 = 79%	2/5 = 40%	13/14 = 93%	3/5 = 60%
VI – South	12/13 = 92%	N/A	11/13 = 85%	N/A
Overall Totals:	60/66 = 91%	6/10 = 60%	60/66 = 91%	8/10 = 80%

As you can see, we have remained relatively constant over the course of the last two years and this compares favorably to historical benchmarks. That being said, our goal remains to have 100% participation by the dental schools in the United States. While I am proud of the level of institutional participation, I would ask that if your school is listed as one of those not being a member (see the Schools and Regions section of the 2018 Annual National Report at www.unmc.edu/code), please help facilitate payment by following up with the individual who is responsible for sending in the annual dues. Contact me directly at gary.stafford@marquette.edu with any questions you might have.

During 2017, I was only able to attend one regional meeting and so I made a personal commitment to attend more meetings during 2018. Thankfully, I was able to join three regional meetings in 2018; Region I in Seattle, WA, Region II in Lincoln, NE, and Region VI in Chapel Hill, NC. I would like to extend my personal thanks to the following individuals who went to great lengths to ensure that all of the attendee's had an informative and enjoyable few days.

- Region I Director, Dr. Oanh Le and hosts, Dr. J. Martin Anderson and Dr. Yuen-Wei Chen at the University of Washington Health Sciences School of Dentistry.

- Region II Director, Dr. Christa Hopp and host, Dr. William Johnson at the University of Nebraska Medical Center College of Dentistry.
- Region III Director, Dr. Shalizeh Patel and host, Dr. Christine Beninger at the Texas A&M Health Science Center College of Dentistry.
- Region IV Director, Dr. Michelle Kirkup and host, Dr. Swati Chitre at the University of Detroit Mercy School of Dentistry.
- Region V Director and host, Dr. James Kaim at the University of New York College of Dentistry.
- Region VI Director, Dr. Mary Baechle and host, Dr. Sumitha Ahmed at the University of North Carolina School of Dentistry

I would also like to thank the Dean of each host school for allowing us to visit their respective institutions and for providing us with meeting spaces, refreshments, and permission to tour their facilities. Similarly, I must thank our wonderful corporate sponsors who generously provide product demonstrations, presentations, and meals for those in attendance.

During the fall meetings, two new Regional Directors were elected; Dr. Rosemary McPharlin was elected for Region I and Dr. Roopwant Kaur was elected for Region VI. Dr. McPharlin replaced Dr. Oanh Le and Dr. Kaur replaced Dr. Mary Baechle. Both of these individuals brought their regions to a very high level of involvement and have raised the bar for those who follow in their footsteps as well as for the Directors in the other regions. In addition, due to the quality of leadership she exhibited during her first term, Dr. Christa Hopp was nominated and elected to continue for another three-year term as the Director for Region II. I cannot express my gratitude for their service to CODE deeply enough. As always, thanks must also go to Dr. William Johnson for his continued service as webmaster for the Consortium. Please continue to provide both he and I with any updates regarding your contact information.

Dr. Jay Morrow has agreed to provide a presentation on *“Students Teaching Students; The Value of Peer-to-Peer Learning”* at the 2019 CODE 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 21st, 2019. Dr. Morrow is the Associate Dean for Preclinical Education at Midwestern University College of Dental Medicine-AZ and will be representing Region I. The Academy of Operative Dentistry continues to graciously provide support for this annual event so I would hope that many of you would be able to join us during the AOD’s Annual Meeting. I will look forward to seeing you there. Until then, you have...

All my best,



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 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 12.30.18

	Region	Regional Directors	Phone/email	3 Year Term
I	Pacific	Rosemary McPharlin DDS Associate Professor Oregon Health & Science University School of Dentistry 2703 SW Moody Ave Portland, OR 97201	503.494.6209 mcpharli@ohsu.edu	2018 - 2021
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	2018 - 2021
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	Roopwant Kaur BDS, MS Clinical Assistant Professor East Carolina University School of Dental Medicine Greenville, NC 27834	252.737.7148 kaurr@ecu.edu	2018 - 2021
		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 - 2019
		At-Large Members	Phone/email	3 Year Term

Consortium of Operative Dentistry Educators (CODE)

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 wjohnson@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	2018/19 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	2018/19 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	2018/19 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	Texas A & M Health Science Center 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	2018/19 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) – 19 Dental Schools (5 Canada* and 14 United States) + 1 NDC Member

Region	Dental School	2018/19 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	✓

Consortium of Operative Dentistry Educators (CODE)

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	2018/19 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	✓

2018 Regional Meeting Hosts

Region/Dates	University/Address	Host Name/Phone/email
I – September 27-28, 2018	University of Washington Health Sciences School of Dentistry 1959 NE Pacific St Seattle, WA 98119-6365	J. Martin Anderson 206.543.5948 jma@uw.edu Yen-Wei Chen 206.543.5948 ywchen@uw.edu
II – September 20-21, 2018	University of Nebraska Medical Center College of Dentistry 4000 East Campus Loop South Lincoln, NE 68583-0740	Bill Johnson 402.472.9406 wwjohnson@unmc.edu
III – November 8-9, 2018	Texas A&M University Health Science Center College of Dentistry 3302 Gaston Ave Dallas, TX 75246	Christine Beninger 214.828.8211 cbeninger@tamhsc.edu
IV – October 11-12, 2018	University of Detroit Mercy School of Dentistry 2700 Martin Luther King Jr. Blvd (MB 98) Detroit, MI 48208-2576	Swati Chitre 313.494.6783 chitresd@udmercy.edu
V – October 1-2, 2018	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 4-5, 2018	University of North Carolina School of Dentistry 441 Brauer Hall Chapel Hill, NC 27599	Sumitha Ahmed 919.537.3146 sumitha_ahmed@unc.edu

2019 Regional Meeting Hosts

Region/Dates	University/Address	Host Name/Phone/email
I – September 26-27, 2019	University of Nevada, Las Vegas School of Dental Medicine 1001 Shadow Lane MS 7415 Las Vegas, NV 89106	Davin Faulkner 702.774.2559 davin.faulkner@unlv.edu Bernard Hurlbut 702.774.2687 bernard.hurlbut@unlv.edu
II – September 19-20, 2019	A.T. Still University Missouri School of Dentistry & Oral Health 1500 Park Ave St. Louis, MO 63104	Brandon Crivello 314.685.3573 brandoncrivello@atsu.edu
III – October 24-25, 2019	University of Texas Health Science Center at San Antonio School of Dentistry 7703 Floyd Curl Drive San Antonio, TX 78232	Joseph Connor 210.567.3693 connorj@uthscsa.edu
IV – October 10-11, 2019	University of Michigan School of Dentistry 1011 N University Ave Ann Arbor, MI 48109	Elisabeta Karl 734.763.3340 ekarlz@umich.edu
V – September 16-17, 2019	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, 2019	East Carolina University School of Dental Medicine 441 Brauer Hall Greenville, NC 27834	Roopwant Kaur 252.737.7148 kaurr@ecu.edu

Regional Meeting Reporting/National Meeting Information

The 2018 National Agenda was established after a review of the suggestions contained in the reports of the 2017 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 21st, 2019 from 5:10 – 6:30 pm in the Parkside Room at the Drake Hotel, 140 East Walton Place, in Chicago, IL.

2019 ADEA Section on Operative Dentistry and Biomaterials Meeting:

The meeting will be held on Monday, March 18th at 7:00 am during the ADEA Annual Session & Exhibition, March 15-19, 2019 in Chicago, IL.

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

2018 National Agenda

I. Curriculum

- a. Operative Course(s):**
 - i.** How many semesters and in what year(s) is your operative dentistry course taught?
 - ii.** How many hours per week are devoted to the operative dentistry course?
 - iii.** What is/are the course title(s)?
 1. How many credit hours are given for each course?
 2. Please list the course description(s) as seen in your Bulletin.
 - iv.** What didactic resources does your Operative course(s) utilize?
 1. Required textbook(s)?
 - a. If Yes, which one(s)?
 2. Lab manuals
 3. Course packets
 4. Handouts
 5. Live hands-on demonstrations
 6. Self-made videos (private domain)
 - a. If Yes, would you be willing to share?
 7. You Tube videos (public domain)
 8. Professionally-made videos (purchased for private use)
 - a. If Yes, how do you like them? Who made the video(s)?
 - b. If No, would your school consider purchasing high quality videos?
 - v.** What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.).
 - vi.** Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth?
 1. If Yes, please describe.
 - vii.** Is there any OSCE exam in the operative course in your school?
 1. If Yes, please describe.
- b. Operative Faculty:**
 - i.** How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?
 - ii.** How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.)
- c. How are patient treatment plans developed?**
 - i.** Who is involved in the process?

- ii. How are these patients then assigned to students?
- iii. How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school?

II. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?
 - i. If No, why not?
 - ii. If Yes, is it mandatory or optional?
 - iii. If Yes, do students use them during licensing examinations?
 - iv. If Yes, please list the specific product(s), color(s), and manufacturer(s).
- b. Does your school use any caries detection devices as part of the clinical protocol?
 - i. If Yes, please list the specific product(s) and manufacturer(s).
 - ii. If Yes, please provide the clinical protocol.

III. Materials and Techniques

- a. Isolation:
 - i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?
 - 1. If Yes, please describe.
- b. Adhesives:
 - i. How many composite bonding systems do you have in your pre-doctoral clinic?
 - 1. List each system by classification, product name, and manufacturer:
 - a. 4th generation – Three-step Etch-Rinse
 - i. Etch. Rinse. Prime. Bond.
 - 1. e.g. – Optibond (Kerr)
 - b. 5th generation – Two-step Etch-Rinse
 - i. Etch. Rinse. (Prime+Bond).
 - 1. e.g. – Prime & Bond (Dentsply)
 - c. 6th generation – Two-step Self-etch
 - i. (Etch+Prime). Bond.
 - 1. e.g. – Clearfil SE (Kuraray)
 - d. 7th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 - 1. e.g. – Prompt L Pop (3M ESPE)
 - e. 8th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 - 1. e.g. – Futura bond DC (VOCO America)

2. Are your students and faculty provided with specific indications and guidelines for their use?
 - a. If Yes, please provide the indications and guidelines.
- c. Light Curing
 - i. When is light curing taught in the curriculum and how much time is devoted to the topic?
 - ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit?
 - iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own?
 - iv. What specific curing light(s) do you have available?
 1. Please list name(s) and manufacturer(s)
 - v. What protocols are in place to ensure the proper use of your light curing system(s)?
 - vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)?

IV. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission?
 - i. If Yes, describe what is required of the applicant.
- b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)
 - i. Are all students who fail eligible for remediation?
 1. If No, what circumstances would not allow remediation?
 - ii. Do all students eventually pass remediation?
 1. If No, what happens to them?
 - iii. How do you remediate students who fail the didactic program?
 - iv. How do you remediate students who fail the laboratory simulation program?
- c. How do clinical procedures get evaluated? (pass/fail, grading scale, etc.)
 - i. Do you use a clinical evaluation (grading) system that is integrated with axiUm?
 1. If Yes, please describe.
 2. If No, what system do you use to collect the data?
- d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?
 - i. If Yes, how long is the specified time for the following:
 1. Class II amalgam
 2. Class II composite
 3. Full crown preparation
 - ii. If Yes, is there an assessment at the end of the specified time?

1. If Yes, is this assessment a factor in the project or course grade?
 - iii. If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?
- e. How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure?
 - i. How is it assessed (manikin vs. live patient)?
 - ii. When do these assessments occur?
- f. Does your school provide mock boards for your students?
 - i. If Yes, how are patients obtained?
 - ii. If Yes, provide details on how mock boards are conducted.
 - iii. If Yes, is passing the mock boards a requirement for taking the actual board exam?
 - iv. If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards?
 - v. If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards?

V. Administration

- a. Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school.
- b. How does your school allow for mandated accommodations for students with a learning disability?
 - i. For examinations and/or practical?
 - ii. How often have you had to deal with this issue?
 - iii. What were the learning disabilities?
 - iv. Please provide your University/School's policy statement?

2019 Regional Meeting Report Form

Region:

Host University, Address, and Dates of 2019 Regional Meeting:

Host University	Address	Dates of Meeting

Chairperson and Contact Information for 2019 Regional Meeting:

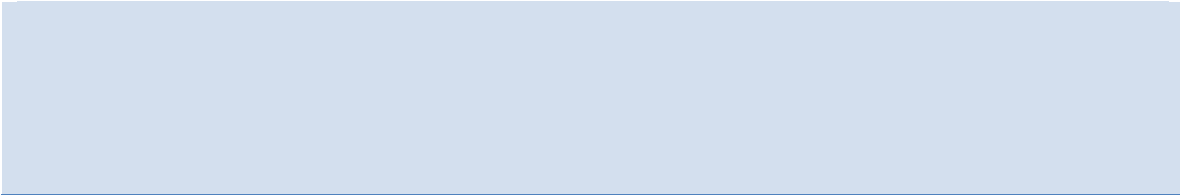
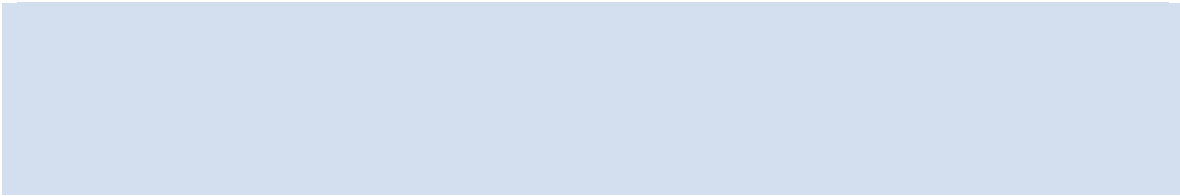
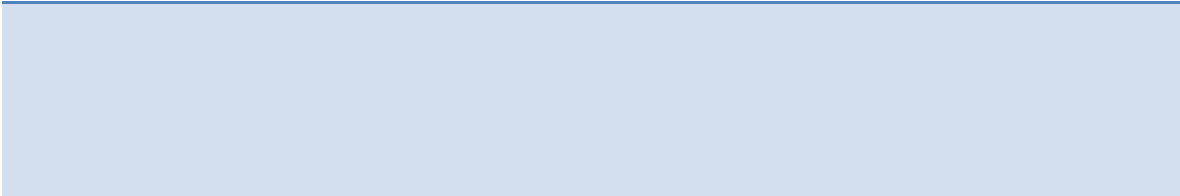
Chairperson	University/Address	Phone/email

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

Contact Person, Host University, and Dates of 2020 Regional Meeting:

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

Suggested Agenda Items for 2020:



2019 Regional Meeting Attendee's Form

Name	University	Phone	email

2019 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
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

Regional Meeting Report Form

Region:

Host University, Address, and Dates of the 2019 Regional Meeting:

Host University	Address	Dates of Meeting
University of Nevada, Las Vegas School of Dental Medicine	1001 Shadow lane MS 7415 Las Vegas, NV 89106	September 26-27, 2019

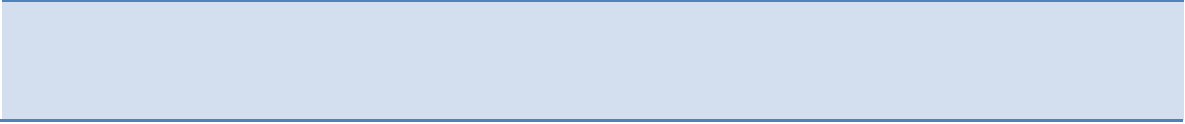
Chairperson and Contact Information for the 2019 Regional Meeting:

Chairperson	University/Address	Phone/email
Rose McPharlin	Oregon Health & Sciences University School of Dentistry 2730 SW Moody Avenue Portland, OR 97201	503-494-6209 mcpharli@ohsu.edu

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

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

Contact Name Phone/email	Host University/Address	Dates of Meeting
Davin Faulkner Davin.faulkner@unlv.edu 702-774-2559 Bernard Hurlbut Bernard.hurlbut@unlv.edu 702-774-2687	University of Nevada, Las Vegas School of Dental Medicine	September 26-27, 2019



Regional Meeting Attendee's Form

Name	University	Phone	email
Gary Stafford	CODE National Director	414-288-5409	gary.stafford@mu.edu
J Martin Anderson	UW	253-631-0679	jma@uw.edu
Yen-Wei Chen	UW	206-353-9563	ywchen@uw.edu
Daniel C. Chan	UW	206-221-7962	dcnchan@uw.edu
Albert Chung	UW	206-543-5948	akchung@uw.edu
Alireza Sadr	UW	206-221-3630	arsadr@uw.edu
Oanh Le	UCSF	415-519-9852	Oanh.le@ucsf.edu
Nirvana Anosheh	UCSF	408-515-6967	Nirvanaa@comcast.net
Loris Abedi	USC	818-690-3906	labedi@usc.edu
Bernard Kula	University of Alberta	780-953-5754	kula@ualberta.edu
Davin Faulkner	UNLV	702-774-2559	Davin.faulkner@unlv.edu
Bernard Hurlbut	UNLV	702-774-2687	Bernard.hurlbut@unlv.edu

Name	University	Phone	email
Ricardo Schwedhelm	UW	206-543-5948	erschwed@uw.edu
Pollene Speed	UW	206-543-5948	speedp@uw.edu
Brian Chui	WU	626-733-6804	bchui@westernu.edu
Mark Christensen	WREB	801-979-1974	mark@mlchristensendds.com
Phil Buchanan	UOP	408-427-2552	jbuchan@garlic.com
Patrick Roetzer	UOP	707-592-7526	paddyraptor@gmail.com
James Keddington	U of Utah	385-439-7774	James.keddington@hsc.utah.edu
Mark Taylor	U of Utah	801-455-9989	markrosstaylor@hsc.utah.edu
Iris Nam	LLU	909-583-3834	inam@llu.edu
Reema Younan	LLU	205-383-6608	ryounan@llu.edu
Jay Morrow	Midwestern U	602-509-2141	jmorro@midwestern.edu

Teresa Pulido-Hernandez	Midwestern U	630-515-6315	tpulid@midwestern.edu
Hide Watanabe	OHSU	971-312-6001	watanabh@ohsu.edu
Benjamin Wall	Roseman U	801-598-8013	Bwall@roseman.edu
David Howard	Roseman U	435-421-1614	dhoward@roseman.edu
Marc Hayashi	UCLA	206-795-5327	mhayashi@dentistry.ucla.edu
Bo Yu	UCLA	424-393-6558	boyu@dentistry.ucla.edu
James Newman	UW		newmanj2@uw.edu
Christina Lee	UW		Leec217@uw.edu
Juri Haya	UW		jhaya@uw.edu

Suggested Questions for 2019 National Agenda

- 1) Post and core: what type of posts, what material, direct or indirect?
What type of material for core buildup?
Is the use of posts decreasing and why?
- 2) Provisional materials:
What materials? Indications and methods etc...
- 3) Use of technology (Clinic & Pre-clinic) integration of technology into the curriculum
- 4) Restorative material update
- 5) Teaching techniques
- 6) Analyzing big data from clinic to adjust pre-clinical
Clinical curriculum (i.e trends in materials used, number of procedure Performed, when procedures are performed? etc..)
- 7) How are your restorative materials chosen/evaluated
- 8) CAD/CAM work flow
- 9) CODA new standardization faculty calibration
- 10) Use of RMGI in the clinic Yes or No? If so where? What brands? How successful?
- 11) Is amalgam still use in your clinic? If so % of direct restorations
Are the amalgams bonded?
- 12) Cementation procedures: eMax bonded %, self etch adhesive%, Fuji Cement?
Other%
- 13) Is air abrasion taught? For what uses?
- 14) Do you evaluate students using OSCEs? How often?
- 15) Is CEREC used in the clinic? How often?
- 16) Who performs molar endo? Students%, Endo faculty%, Endo program students%
- 17) Do you have Bond Strength testing exercises? Who supervises?
- 18) Do dental assistants assist in the clinic? For what procedures?
- 19) Do dental hygiene students work in the clinic? If so, is the interaction with the dental students supervised?
- 20) Is daily work graded in Axium?
- 21) Do you use traditional GI in your clinic? If No why not? If Yes then what purposes?
- 22) Do you use tribochemical bonding i.e. CoJet or performed? If preformed are they metal or composite fiber?
- 23) How do you deal with C Factor in restorations including endo posts?
- 24) Are you use electric handpieces in clinic? If No why not? If Yes what brand?
- 25) Are any of you looking to the Bioclear David Clark prep design and accoutrements for placements?
- 26) Are you doing more milled partial coverage as a result of the scanning and milling capability? Has it replaced gold in your clinic?

Regional Nominee for Presenting at the 2019 CODE Annual Meeting (Please Include Topic)

Name	Topic	Contact Info
Jay Morrow – Associate Dean	Peer to Peer Learning of Techniques	jmorrow@midwestern.edu 602-509-2141

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

Region I School Abbreviations:

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

I Curriculum

a. Operative Course(s):

- i. How many semesters and in what year(s) is your operative dentistry course taught?**

UA: three semesters (winter D1, intersession D1 and fall D2)

UBC: UBC Operative has been integrated with Fixed Pros/Digital in a 3-year simulation continuum course as Restorative Dentistry I, II and III
Operative is taught in: Years 1 and 2 mainly (3 semesters)

ASDOH: 3 semester, Fall D1, Spring D1 & Fall D2

MWU: 6 quarters. Both first and second years

UW: There are total 5 quarters of Operative Dentistry at UW

OHSU: 1st year

- i. Fall: REST 703 Minimally Invasive Dentistry I: Direct Restorations I /**
- ii. Single Surface REST 703** is the first in a series of Restorative courses. It
- iii.** will provide the foundation for the Restorative courses that follow. Topics in
- iv.** ergonomics, cariology, prevention, cavity nomenclature and tooth whitening
- v.** will be presented.

- vi. **Winter: REST 706 Minimally Invasive Dentistry II: Direct Restorations II / Multiple Surfaces**
- vii. REST 706 is a combined didactic and simulation clinic restorative technique course. Direct multiple surfaces (two and three surfaces) posterior composites and amalgam will be taught. As the students learn about these different dental materials and procedures they will have the immediate opportunity to apply the knowledge in the simulation clinic by preparing and restoring typodont teeth with the appropriate material.

- viii. **Spring: REST 708 Direct Restorations Multiple Surfaces / Indirect Restorations I: Partial Coverage**
- ix. REST 708 is the eight combined didactic and simulation clinic restorative technique course. Large anterior and posterior composites, amalgams, and inlay/onlay gold casting restorations will be taught. As the students learn about these different dental materials and procedures they will have the immediate opportunity to apply that knowledge in the simulation clinic by preparing and restoring typodont teeth with the appropriate material.

- x. **2nd year ***
- xi. **Fall: REST 715 Restorative Treatment I: Moderate Caries Risk Patient**
- xii. REST 715 is the combined didactic and simulation clinic restorative technique course. It is the first restorative treatment preclinical course. The student will learn about patient communication, data collection, comprehensive oral diagnosis, AxiUm forms, treatment planning, treatment presentation, and review the topics of dental amalgam, and core build. After finalizing the treatment plan of a moderately active caries risk patient, the student will “provide” restorative treatment by preparing and restoring Ivorine teeth in the simulation clinic using the appropriate materials and techniques for this particular simulated patient.

- xiii. **Spring: REST 716 Restorative Treatment II: High Caries Risk Patient**
- xiv. REST 716 is the combined didactic and simulation clinic restorative technique course. It is the second restorative treatment preclinical course. The student will learn about patient communication, data collection, comprehensive oral diagnosis, AxiUm forms, treatment planning, treatment presentation, and review the topics of dental amalgam, and core build. After finalizing the treatment plan of a moderately active caries risk patient, the student will restore Ivorine

teeth in the simulation clinic using the appropriate materials and techniques for this particular simulated patient.

- xv. *The 2 courses in the second year are designed for practicing treatment planning followed by restorative procedures. The operative procedures are parts of the entire restorative treatments including both operative and prosthodontics.

WUHS: It is taught in 5 semesters during the student's 1st and 2nd years. Operative Dentistry is not a standalone course an integrated throughout a multidisciplinary course titled Essentials of Clinical Dentistry.

UNLV: 1st year 2nd semester- DEN 7121/7133 Principles of Clinical Dentistry: Operative Dentistry

1st year 3rd semester-DEN 7118/7138 Clinical Dentistry II: Operative Dentistry

Operative Dentistry is taught in various other courses throughout all years but it is taught in conjunction with other disciplines.

ROSE: 2 semesters, 1st year

UU: D1 year: Fall Semester, Spring Semester, Summer Semester

D2 year (clinical challenges): Spring Semester, Summer Semester

D3 year (clinical challenges): Fall Semester, Spring Semester, Summer Semester

D4 year (clinical challenges): Fall Semester, Spring Semester

UOP: Operative is taught in the first three quarters of the First Year

UCSF: First and second year operative, 6 quarters total.

UCLA: Pre-Clinical-1st/2nd year (6 quarters total)
Clinical-Final 2.5 years of dental school (10 quarters)

USC: First year. Trimester I and II

- LLU:**
1. D1:
 - a. Q2: Restorative Dentistry I (Tooth Morphology)
 - b. Q3: Restorative Dentistry II (Occlusion & Dental Material)
 - c. Q4: Restorative Dentistry III (Composite Restorations)
 2. D2:
 - d. Q1: Restorative Dentistry IV (Amalgam Restorations)
 - e. Q2: Single Casting (Full coverage crowns, all materials)
 - f. Q3: Fixed Prosthodontics I
 3. D3:
 - g. Q1: Fixed Prosthodontics II
 - h. Q2: Implant Dentistry
 - i. Q3: Operative Dentistry I
 - j. Q4: Esthetic Dentistry, Fixed Pros & Occlusion

ii. How many hours per week are devoted to the operative dentistry course?

UA: Averages 8 hours per week.

UBC: 6 hours /week in year 1; and 4 hours / week in 40% of year 2

ASDOH: It is different depend on the course from 8 hours a week to 32 hours.

MWU: 13 hours

UW: Average 7 hours per week

OHSU: 1hour lecture and 3hour simulation lab/ week

WUHS: The individual operative courses are integrated into a larger Essentials of Clinical Dentistry Courses (ECD). Depending on the operative course, there can be a total of 3-14 sessions. The sessions can be distributed between 2-3 semesters. Each session is roughly 3-4 hours long.

UNLV: 1st year 2nd semester- Intro to Operative Dentistry- 3 hrs

1st year 3rd semester-Operative Dentistry- 6 hrs

ROSE: 24

UU: D1 year: Fall Semester- 1 hr didactic, 3 hrs lab

Spring Semester- 1 hr didactic, 3hrs lab

Summer Semester- 4 hrs lab

D2 year: Spring Semester- 2 hrs didactic (some lab)

Summer Semester- 2 hrs didactic (some lab)

D3 year: Fall Semester- 2 hrs didactic (some lab)

Spring Semester- 2 hrs didactic (some lab)

Summer Semester- 2 hrs didactic (some lab)

D4 year: Fall Semester- 2 hrs didactic (some lab)

Spring Semester- 2 hrs didactic (some lab)

UOP: Tuesdays 3Hrs, Thursdays 8hrs

UCSF: 4 hours per week, 40 hours per quarter, 120 hours per year, 240 hours over the 2 years.

UCLA: Pre-Clinical-8-12 hours depending on the quarter

Clinical-N/A

USC: Varies from trimester to trimester

LLU: 2-3 hours of lecture and 6 hours of sim lab

1hour lecture: Implant Dentistry

1hour lecture & 3hour sim lab: Operative Dentistry &
Esthetic Dentistry

iii. What is/are the course title(s)?

1. How many credit hours are given for each course?

2. Please list the course description(s) as seen in your Bulletin.

UA: Preclinical Operative Dentistry
270 hours total

This course serves as an introduction to the art and science of operative dentistry which includes foundation theory presented in lectures and foundation skills developed in simulation labs. This foundation training is required to prepare the student for the clinical component. Building on student knowledge of epidemiology, bacteriology, and gross and microscopic anatomy of the teeth and jaws, students will develop an understanding of the restoration of teeth and the related rationale. The focus is the placement and finishing of direct restorative materials in a simulated setting.

UBC: Restorative Dentistry I/ II/ III

N/A

Resto I: This pre-clinical module will include the introduction to diagnosis and treatment planning, the principles and application of psychomotor skills, biomaterials, occlusion, and the surgical management of tooth defects including single tooth direct and indirect restorations for the dentate patient.

Resto II: This preclinical module provides further introduction to the theory and practice of fixed prosthodontics and operative dentistry building on the foundations learned and practiced in DENT 410. It will include increasingly complex application of the underlying principles of tooth preparation, the skills and knowledge needed to restore teeth with both indirect and direct restorations, information on related biomaterials, and the development of self-evaluation skills.

Resto III: This pre-clinical module will further build on the material learned and practiced in Dent 410 Restorative Dentistry I and Dent 420 Restorative Dentistry II. This module will introduce the students to more advanced restorative (operative and prosthodontic). Topics will include: fixed rehabilitation of the partially dentate patient, restoration of the endodontically treated tooth, complex amalgam

and composite restorations, porcelain veneers and single tooth implant therapy.

ASDOH: Operative 1, Fall D1 year 2.8 credit hours

Operative II didactic, Spring D1 year 2.6 Credit hours

Operative II lab, Spring D1 year 7.1 credit hours

Operative III, fall D2 year 4 credit hours

Operative I & II

This course will introduce the students to the basic theory and techniques of operative dentistry. Students will have the opportunity to combine the theoretical understanding and integration of clinical skills with medical science knowledge, develop technical skills in operative dentistry through the learning of basic intracoronal preparation and restorations in single teeth, investigate evolving technology, material science, and research, perform self-assessments, and develop a their professional conduct, attitude and appearance. The course will provide students the opportunity to apply clinical and professional skills in a simulated practice environment.

Operative III

This course is a continuation of the Operative Dentistry (D1) course. It will expand the students' knowledge of the theory and techniques of operative dentistry. Students will have the opportunity to combine the theoretical understanding and integration of clinical skills with medical science knowledge, develop properly sequenced treatment plan, develop technical skills in operative dentistry through learning more about intra-coronal preparation and restorations in single teeth, develop clinical judgment, perform self-assessments, and develop their professional conduct, attitude and appearance. The module will provide students the opportunity to apply clinical and professional skills in a simulated practice environment.

MWU: Simulation clinic is 10.5 credit hours/quarter. Didactic is similar but includes all disciplines in each course.

UW: Operative Dentistry 1, 2, 3, 4, 5 or DENTPC 530, 550, 560, 570,
580 3 credit hours for each courses

Operative Dentistry is the branch of oral health services concerned with restoring to form, function, and esthetics, teeth that have been ravaged by caries, trauma, erosion, abrasion, and/or attrition. Emphasis on basic principles of cavity preparation for proper coverage direct and indirect restorations. Considerations include restorative treatment planning and proper selection of restorative materials.

Operative Dentistry Course descriptions:

1) DENTPC530 covers dental caries from a clinical perspective including nomenclature, surgical management strategies, and instrumentation for treatment. Caries detection methods and caries risk assessment are introduced. The principles of minimally invasive dentistry, including non-invasive and chemotherapeutic treatment approaches are discussed. The caries lesions classification is introduced based on the ICDAS system and 2015 ADA publication. The materials of choice when surgical intervention becomes necessary; including composite restorative materials, glass ionomer and amalgam are introduced along with polymer photo-curing strategies, and dentin-enamel adhesives and bonding techniques. Principles of tooth preparation are discussed based on the requirements for each of the materials and in line with the recommendations in the reference book.

2) DENTPC 550 covers the surgical management and restoration techniques for class I, sealants and preventive restorations. The restoration techniques are focused on dental adhesion and regular composites, flowable composites, and sealant materials. In addition, DENTPC 550 introduces clinical isolation techniques that will be applied in DENTPC 560 and beyond.

3) DENTPC 560 covers surgical management and restoration techniques for conservative one surface, two-surface and three-surface restorations involving occlusal, proximal and smooth surfaces, namely class 1,2,3,4, and 5 restorations. Restoration of teeth with composite, amalgam, and glass ionomer are covered. Tooth isolation is used throughout. The course emphasizes the interactions among surgical preparation skills, application of bonding agents, placement of restorative materials, finishing and polishing of restorations as well as patient disease activity and risk, patient priorities, and anatomical variations.

4) DENTPC 570 covers techniques to restore form, function and esthetics of teeth that have been lost due to caries, trauma and erosive tooth wear. The main focus of the course is on the advanced composite restorations and adhesive dentistry but restoration with amalgam and glass ionomer are also covered. The course emphasizes the interactions among patient needs and priorities, disease activity and risk, long-term tooth survival and health maintenance based on minimally-invasive dentistry concepts. Recent literature will be included to emphasize evidence-based treatment and critical thinking.

5) DENTPC 580 Emphasizes on proper coverage direct esthetic and indirect restorations. Considerations include restorative treatment planning, proper selection of restorative materials and applications of CAD/CAM technology.

OHSU: 1st year

Fall: REST 703 Minimally Invasive Dentistry I: Direct Restorations I / Single Surface

REST 703 is the first in a series of Restorative courses. It will provide the foundation for the Restorative courses that follow. Topics in ergonomics,

cariology, prevention, cavity nomenclature and tooth whitening will be presented.

Winter: REST 706 Minimally Invasive Dentistry II: Direct Restorations II / Multiple Surfaces

REST 706 is a combined didactic and simulation clinic restorative technique course. Direct multiple surfaces (two and three surfaces) posterior composites and amalgam will be taught. As the students learn about these different dental materials and procedures they will have the immediate opportunity to apply the knowledge in the simulation clinic by preparing and restoring typodont teeth with the appropriate material.

Spring: REST 708 Direct Restorations Multiple Surfaces / Indirect Restorations I: Partial Coverage

REST 708 is the eight combined didactic and simulation clinic restorative technique course. Large anterior and posterior composites, amalgams, and inlay/onlay gold casting restorations will be taught. As the students learn about these different dental materials and procedures they will have the immediate opportunity to apply that knowledge in the simulation clinic by preparing and restoring typodont teeth with the appropriate material.

2nd year *

Fall: REST 715 Restorative Treatment I: Moderate Caries Risk Patient

REST 715 is the combined didactic and simulation clinic restorative technique course. It is the first restorative treatment preclinical course. The student will learn about patient communication, data collection, comprehensive oral diagnosis, AxiUm forms, treatment planning, treatment presentation, and review the topics of dental amalgam, and core build. After finalizing the treatment plan of a moderately active caries risk patient, the student will “provide” restorative treatment by preparing and restoring Ivorine teeth in the simulation clinic using the appropriate materials and techniques for this particular simulated patient.

Spring: REST 716 Restorative Treatment II: High Caries Risk Patient

REST 716 is the combined didactic and simulation clinic restorative technique course. It is the second restorative treatment preclinical course. The student will learn about patient communication, data collection, comprehensive oral diagnosis, AxiUm forms, treatment planning, treatment presentation, and review the topics of dental amalgam, and core build. After finalizing the treatment plan of a moderately active caries risk patient, the student will restore Ivorine teeth in the simulation clinic using the appropriate materials and techniques for this particular simulated patient.

*The 2 courses in the second year are designed for practicing treatment planning followed by restorative procedures. The operative procedures are parts of the entire restorative treatments including both operative and prosthodontics.

2 hours

WUHS: There are 6 ECD courses. Depending on the length of each semester, the credit hours range from 4-8 units.

ECD I: This course is designed to introduce new dental students to the healthcare profession, the clinical practice of dentistry and the College of Dental Medicine Clinical Program and procedures. The course provides the students with basic skills and knowledge to allow a smooth transition into initial patient care interactions as a dental assistant. The course provides the student with clinical foundational knowledge in the areas of dental morphology, head and neck anatomy, the relationships between the teeth and supporting structures, operative and restorative dentistry, and dental materials sciences. Students will learn basic clinical skills including preventive procedures, diagnostic techniques, oral hygiene instruction and patient education, and operative dentistry.

UNLV: DEN 7121/7133- 3 credit hours- Introduction to the basic principles, philosophy, and techniques of Operative Dentistry, the restoration of single teeth. Students will learn in lecture and laboratory to restoration teeth with Class I, II, and III restorations using dental amalgam and composite restorative materials

DEN 7118/7138- 5 credit hours- Study of dental anatomy of the adult and pediatric dentitions as it is applied to operative dentistry. Use of rotary and hand instrumentation to prepare teeth for

restoration. Study of designs of simple operative dentistry preparation for adult and pediatric dentitions.

ROSE: Diagnosis and treatment of tooth borne disease 34

DMD 5320 Diagnosis and treatment of tooth borne diseases – Anterior

Integrated Preclinical Techniques. Students begin with the factual knowledge needed to build a strong foundation for critical assessment, comprehensive evidence-based practice and lifelong learning in the dental profession. Formative and summative assessment will be used to frequently appraise students' grasp of person centered care skills, dental anatomy, dental materials science, occlusion, cariology, operative dentistry, critical thinking and diagnosis and treatment planning. This is a hands-on course focused on caries detection, evaluation and removal techniques in some extracted human teeth, and typodonts. Students will be evaluated on their mastery of person centered care skills and simulation of reconstructive dentistry procedures as they relate to a "family" of patient cases presented in the course. In this course, students use a caries-driven, minimally invasive approach to correct damage from dental caries in the "family" of patients. Emphasis is placed on person centered care, and how to best accommodate the needs and wants of patients. Students are taught modern preparation techniques including sealants and PRR's on a child "patient," and progress through minimally invasive resin-based restorations. Additionally, correct ergonomics for a dental practitioner, hand piece management, and rubber dam application are covered. Emphasis is placed on the development of hand skills and self-evaluation of the student's own work. This is a fast paced and demanding course involving both written and practical assessments. Students are encouraged to be punctiliously efficient, and respect the patients time, needs and desire for treatment.

DMD 5321 Diagnosis and treatment of tooth borne diseases – Posterior

Integrated Preclinical Techniques. Students begin with the factual knowledge needed to build a strong foundation for critical assessment, comprehensive evidence-based practice and lifelong learning in the dental profession. Formative and summative assessment will be used to frequently appraise students' grasp of person centered care skills, dental anatomy, dental materials science, occlusion, cariology, operative dentistry, critical thinking and diagnosis and treatment planning. This is a hands-on course focused on caries detection, evaluation and removal techniques in some extracted human teeth, and typodonts. Students will be evaluated on their mastery of person centered care skills and simulation of reconstructive dentistry procedures as they relate to a "family" of patient cases presented in the course. In this course, students use a caries-driven, minimally invasive approach to correct damage from dental caries in the "family" of patients. Emphasis is placed on person centered care, and how to best accommodate the needs and wants of patients. Students are taught modern preparation techniques including sealants and PRR's on a child "patient," and progress through minimally invasive resin-based restorations. Additionally, correct ergonomics for a dental practitioner, hand piece management, and rubber dam application are covered. Emphasis is placed on the development of hand skills and self-evaluation of the student's own work. This is a fast paced and demanding course involving both written and practical assessments. Students are encouraged to be punctiliously efficient, and respect the patients time, needs and desire for treatment.

DMD 5322 Diagnosis and treatment of tooth borne diseases –Crowns

Integrated Preclinical Techniques. Students will be evaluated on their mastery of laboratory skills and simulation of reconstructive dentistry procedures as they relate to a “family” of patient cases presented in the course. Starting with all-ceramic preparations and progressing through PFM, and gold restorations, an emphasis on conservation of tooth structure and maintaining or enhancing esthetics is woven through all projects. Students learn single tooth and multiple tooth rehabilitation and treatment planning accompanies all projects. Ample time is spent on the adhesive protocols for cementation. Related topics included in this component are simulation of person centered skills, and general dental procedures such as traditional and digital impression taking, provisional crowns, and model work.

DMD 5323 Diagnosis and treatment of tooth borne diseases - Complex Restorations

Integrated Preclinical Techniques. Students begin with the factual knowledge needed to build a strong foundation for critical assessment, comprehensive evidence-based practice and lifelong learning in the dental profession. Formative and summative assessment will be used to frequently appraise students' grasp of person centered care skills, dental anatomy, dental materials science, occlusion, cariology, operative dentistry, critical thinking and diagnosis and treatment planning. This is a hands-on course focused on caries detection, evaluation and removal techniques in some extracted human teeth, and typodonts. Students will be evaluated on their mastery of person centered care skills and simulation of reconstructive dentistry procedures as they relate to a “family” of patient cases presented in the course. In this course, students use a caries-driven, minimally invasive approach to correct damage from dental caries in the “family” of patients. Emphasis is placed on person centered care, and how to best accommodate the needs and wants of patients. Students are taught modern preparation techniques including sealants and PRR's on a child “patient,” and progress through minimally invasive resin-based restorations. Additionally, correct ergonomics for a dental practitioner, hand piece management, and rubber dam application are covered. Emphasis is placed on the development of hand skills and self-evaluation of the student's own work. This is a fast paced and demanding course involving both written and practical assessments. Students are encouraged to be punctiliously efficient, and respect the patients time, needs and desire for treatment.

Students gain exposure to all types of anterior and posterior direct preparations and restorations including Classes I, II, III, IV, V. Occlusion and establishing the proper occlusal relationship is paramount.

DMD 5324 Diagnosis and treatment of tooth borne diseases - Onlay

Integrated Preclinical Techniques. Students will be evaluated on their mastery of person centered skills and simulation of reconstructive dentistry procedures as they relate to a “family” of patient cases presented in the course. Starting with onlays on conservation of tooth structure and maintaining or enhancing esthetics is woven through all projects. Students will learn how to restore teeth using intra-coronal restorations with emphasis on the conservation of tooth structure. Ample time is spent on the adhesive protocols for cementation. Related topics included in this component are simulation of person centered skills, and general dental procedures such as traditional and digital impression taking, provisional crowns, and model work.

UU: Operative Dentistry I DENT 7125

4 Credit hours

Course Description

This course will provide students the opportunity to prepare and restore teeth in simulation. Class I and Class II preparations for amalgam restorations will be discussed. Students will begin to analyze and identify the appropriate restorative material for the patients' needs. Students will be self-assessing each project. The student will be evaluated on each project by attending faculty, and if desired, by peers. 100% attendance is required. Any unexcused absence will require a written assignment assigned by the course director or the Section Head. **Unexcused absences will be defined as absences not authorized by the instructor. Absences due to travel (except for school related travel) will be considered unexcused. Appropriate clinical attire and PPE will be expected (see clinic manual).** Please be professional in your behavior, and the treatment will be reciprocated.

Operative Dentistry II DENT 7154

5 Credit hours

Course Description

This course will provide students the opportunity to prepare teeth in simulation. Class I, class II, class III, class IV, and class V preparations for amalgam and composite resin restorations will be discussed. Students will be able to analyze and identify the appropriate restorative material for the patient's needs. Students will be self-assessing each project. The student will be evaluated on each project by attending faculty, and if desired, by peers. 100% attendance is required. Any unexcused absence will require a written assignment assigned by the course director or the Section Head. **Unexcused absences will be defined as absences not authorized by the instructor. Absences due to travel (except for school related travel) will be considered unexcused. Appropriate clinical attire and PPE will be expected (see clinic manual).** Please be professional in your behavior, and the treatment will be reciprocated.

Operative Dentistry III DENT 7161

2 Credit hours

Course Description

This course will provide students the opportunity to prepare and restore teeth in simulation. Class I, class II, class III, class IV, and class V preparations for amalgam, composite resin and glass ionomer materials. Simulated patients will be presented. Students will be expected to assess the patient, treat affected tooth/teeth, and analyze and identify the appropriate restorative material for the patients needs. Students will be self-assessing each project. Instructor assessment will be formative feedback using the same assessment forms that are used on the clinic floor. Attendance is mandatory. Each lab period will include a simulated patient that will require the full time to finish. Each patient will be found in CANVAS as a module. **If you are absent, you will find that you will be impeded from moving on to the next patient. Also, a**

written assignment (a two page, single spaced paper on a clinically relevant subject cleared with the course director) will be required for each absence.

The final two patients to be treated will be considered Competency Assessments (Summative Assessments), and a threshold allowing the student to treat patients in the clinic. The assessment form will be used as it was in simulation, and how it will be used in clinical activities, as well as competency evaluations (meaning the same evaluation form will be used in the pre-clinical competency and clinical competency). If a summative assessment has any critical errors (as defined on the assessment sheet, as graded by two standardized graders), remediation will need to occur. A remediation plan will be devised which may include, verbal/didactic remediation, typodont exercises to ensure understanding, and will include retesting to ensure competency. The dates for retesting will be determined by the course director.

**Clinical Challenges I DENT 7253
Clinical Challenges II DENT 7256
Clinical Challenges III DENT 7301
Clinical Challenges IV DENT 7312
Clinical Challenges V DENT 7314
Clinical Challenges VI DENT 7403
Clinical Challenges VII DENT 74
2 Credit hours (each course)**

Course Description This course will provide students the opportunity to present clinically challenging cases to their peers, with a review of the literature, and discuss outcomes of difficult cases. Each student must present at least once a semester (hopefully it is rewarding to present more often) on subjects that focus on the following: Professionalism, Ethics, Patient Management, Diagnosis and Treatment Planning, and proper referral will be aspects of the presentation. Additional lectures, and guest lecturers will present on subjects of advanced techniques, technologies, and evidence based treatments. Simulation clinic time will be utilized several times throughout the semester to practice. Self-assessment and peer assessment will be a primary focus of grading this Pass/Fail class. 100% attendance is required. Any unexcused class period missed will require make up of that class period missed. *Unexcused absences will result in a no-pass grade for the course. A written assignment (a two page, single spaced paper on a clinically relevant subject cleared with the course director) will be required for each unexcused absence.* **Unexcused absences will be defined as absences not authorized by the instructor. Absences due to travel (except for school related travel) will be considered unexcused.**

UOP: PRD 131 & PRD 146 (Preventative and Restorative Dentistry
(lecture/concepts)/Integrated Pre-Clinical Techniques
(Direct restorative)

Didactic 2 Hrs / Technique 3 Hrs
PRD 131I IPT 1 Concepts Direct Restorative 2 Hrs Didactic
PRD 146I IPT 1 Technique Direct Restorative 3 Hrs Lab

UCSF: PRDS 116,117: Morphology, Restorative Techniques and Biomaterial Science. PRDS 118 Biomaterials Science and Cast Restorations in Dentistry. PRDS 126 Removable Partial Dentures, Crown and Bridge and Operative Dentistry. PRDS 127 Complete Dentures, Endodontics, and Advanced Restorative Techniques.

Please list the course description(s) as seen in your Bulletin. PRDS 116-Dental caries continues to be one of the most prevalent diseases of the oral cavity.

Dental caries is a bacterial disease process, not just a hole in the tooth. On a daily basis there is a dynamic exchange of minerals between the saliva and the tooth surface. Many factors cause the loss of minerals (demineralization) and the replacement of minerals (remineralization) at the tooth surface. If an individual can achieve a balance between loss and replacement, then "tooth decay" does not happen. When a net loss of minerals occurs and bacteria invade the tooth, the end result eventually is a hole in the tooth. Assessing the risk of an individual for caries involves determining the many pathologic and protective factors for caries that are present. Once the risk for caries has been determined, measures to control and prevent caries can be employed.

Treatment of dental caries can in the early stages be managed by chemical means. When caries advances, surgical intervention may be needed. Minimally invasive surgical techniques to remove grossly demineralized tooth structure and bacteria are applied to the carious lesions requiring restoration. A variety of dental materials are appropriate for restoring these minimal preparations. The restorations need to restore the tooth to proper form and function.

This integrated course has three main components: dental morphology, biomaterials, and minimally invasive dentistry (Operative Dentistry). The course will walk you through the dental caries process, the assessment of caries risk, caries management including preventive measures, caries detection methods and minimally invasive tooth preparation techniques. We will introduce you to the instruments used, hand skills, isolation techniques, and ergonomic positioning. Tooth morphology will be taught so that students can gain the knowledge and skill to properly replicate the form and function of the teeth they restore. The science of dental materials will also be presented so that students will have an understanding of the physical properties and characteristics of the materials used to restore the teeth and a scientific basis for their selection.

(Operative Dentistry component)

- -Understand the process of caries development and Caries Risk Assessment.
- -Detect caries in extracted teeth using visual examination, and trans-illumination.
- -Understand the demineralization and remineralization process.
- -Apply decision-making criteria to determine when sealants are indicated.
- -Apply sealants to extracted teeth.
- -Conduct and interpret caries assessment tests and suggest means of controlling caries.
- -Understand how the extent of caries determines the size and type of cavity preparation that is used
- -Describe the biomechanical principles of tooth preparation.
- -Understand the concept of Preventive Resin Restorations (PRR).
- -Prepare minimally extended cavities in extracted teeth, and restore with PRR.

- Describe the principles involved in the minimal preparation of teeth for restoration with amalgam using mechanical retention .
- Describe the principles involved in the preparation of teeth with caries in a variety of locations for restoration with composite resin and with amalgam using rotary and hand instruments.
- Understand and use appropriate nomenclature for operative dentistry.
- Demonstrate the ability to cut smooth and well-defined cavity preparation walls and floors.
- Demonstrate proper ergonomic positioning while performing restorations in all 4 quadrants.
- Demonstrate the ability to differentiate cavity preparations in enamel and dentin.
- Cut cavity preparations of various types in natural and typodont teeth mounted in a mannequin using direct and indirect vision.
- Demonstrate principles of cavity preparation to established criteria.
- Establish isolation of the operative field with the application of the rubber dam.

UCLA: Pre-Clinical: Applied Dental Anatomy/Waxing (Fall D1), Direct Restorations (6 quarters starting Winter D1), Indirect Restorations (5 quarters starting Spring D1), Clinical Applications of Dental Morphology and Occlusion (Spring D1).

Clinical: Clinical Restorative Dentistry

How many credit hours are given for each course?

- a. Pre-Clinical-4 hours per course per week
- b. Clinical-N/A

Course: RFE200 Course Type: Didactic Preclinical Quarter and Year: Summer Quarter, 2018 Course Location: Lecture: 1:00pm – 1:50pm (CHS 13-041) Except 7/2 (A2-342) and 7/9 (NRB132)

Lab: 2:00pm – 5:00pm (4th floor lab) I. COURSE CHAIR(S)

Name: Reuben Kim, DDS, PhD Office: CHS 43-009 Phone: 310-825-7312 E-mail: rkim@dentistry.ucla.edu Office Hours: TBA

Name: Bo Yu, DDS, PhD Office: CHS 43-091 Phone: 310-825-8026 E-mail: boyu@dentistry.ucla.edu Office Hours: TBA

II. COURSE FACULTY

Course instructors are involved in pre-clinical and clinical teaching, research, administrative duties, and private practice. The faculty's broad and varied clinical experiences bring technical and decision-making

expertise to guide your professional development. While all faculty in this course are assigned to assist you only during scheduled course hours, you are encouraged to email them for additional clarification and assistance:

Dr. Ahn, Terry Dr. Bachour, Max Dr. Bonilla, Esteban Dr. Haljun, James Dr. Kyurkchyan, Elizabeth Dr. Reyto, Robert Dr. Williams, Drake

III. COURSE DESCRIPTION

terrydahnds@gmail.com maxbachour@gmail.com
edbonilladds@sbcglobal.net jhaljun@me.com ekyurkchyan@gmail.com
rr707laser@aol.com drakewilliams@ucla.edu

In this course, you will learn the principles and practice of Operative Dentistry in a lecture and laboratory series over the next six quarters of instruction. This series covers all direct restorations including dental amalgam and tooth-colored restorative procedures, and prepares you to treat patients in the Restorative Clinic. The Section of Biomaterials Science will also present lectures on dental materials utilized in conservative direct restorations. Please email the course chair if you have any comments or questions about this course.

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IV. COURSE ORGANIZATION AND FORMAT

In this course, the instructional material will be presented as a lecture (first 1 hr) and laboratory work (3 hrs). To foster learning, hands-on demonstrations will be presented during the lab hours via video or demonstrations from the instructors. For the lecture, you are expected to read pertaining lecture materials prior to each lecture and to take weekly quizzes. For the laboratory work, you are expected to prepare pertaining lab materials to perform lab assignment on each day.

<p>SOD Competencies Addressed</p>	<p>This course series addresses the following SOD Competencies: Competency 16.f - management of restorations of teeth</p> <p>Competency 16.m - management of conditions and procedures on the hard and soft tissues</p>
<p>Course Goals/Objectives – Students who successfully complete this course will be able to:</p> <ol style="list-style-type: none"> . 1) Demonstrate a basic ability to diagnose the various classifications of dental caries, abfraction. . 2) Prepare conservative class I, II, III, IV, V and root caries cavity preparations in artificial teeth to ideal form, function, and esthetics with direct restorative materials such as dental ionomers. . 3) Prepare and restore larger defects using auxiliary techniques such as direct composites and alternative retention methods. . 4) Identify, understand, maintain, sharpen, and skillfully use the various rotary and hand operative dental procedures. . 5) Demonstrate a scientific understanding of the composition, properties, manipulation of restorative materials for pulpal protection, provisional use, and long-term restorations. . 6) Make treatment recommendations based on caries etiology and the risks and benefits of restorative procedures. . 7) Complete restorative procedures utilizing operator and manikin positions, technical armamentarium conducive to the health and safety of both the operator and the patient. . 8) Complete a class II and class III cavity preparation and restoration on a manikin that meets accepted standards for state licensure. . 9) Complete local anesthesia and rubber dam isolation procedures in preparation for restorative procedures. 	

V. REQUIRED TEXTS/RECOMMENDED READINGS

H. Heymann, et al. *Sturdevant’s Art and Science of Operative Dentistry*, 6th ed. (obtained from the UCLA Health Sciences Student Bookstore)

Reading assignments will be listed on each quarter's schedule of lectures and lab projects (obtained weekly from CCLE website).

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VI. SCHEDULE OF CLASSES

Date	Lecture (reading assignments*)	Lab Projects
July 2	Hybrid composite resin restoration (235-242)	Rubber dam #18-28 #19 MO prep only (for r
July 9	Rubber dam #18-28 Restore #19 MO, Prepare #18 MO (In-class assignment)	
July 16	Class III Facial Access (229-235)	Rubber dam: #3-12; #1
July 23	Class III Lingual Access (229-235); Light curing technique	#10 ML (lingual approach exercise)
July 30	Class III Skill Assessment	#9 ML: prep and restoration exercise (continued)
Aug 6	Class V (246-250) preparation for composite resin, 212 cervical retainer application (205-206)	Apply 212 retainer on # restore MARC light curing
Aug 13	Composite resin: (e53-e60, 114-127) Dr. Lee	#7 DL: prep and restoration restore MARC light curing
Aug 20	Reviews: Class I, III, and V prep and composite restoration	#10 DL: prep and restoration only; MARC light curing
Aug 27	Final practical exam (1:00-3:00 pm): Rubber dam #5-12; Prepare #8 ML; Re	

	Final written exam (3:30-4:30 pm): Summer Quarter material only
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VII. GRADING RUBRIC/EVALUATION CRITERIA

a. Knowledge of Subject

Knowledge of Subject includes Daily Quizzes and Final Written Exams. Quizzes encourage punctuality, attendance, and promote knowledge and understanding of the assigned readings, lecture material, and current lab projects. Performance on quizzes will be used for student and course evaluation and improvement. Final exams will cover all presented material including laboratory, lecture and reading assignments. They may consist of multiple choice, short answer, matching, true/false, and essay questions. To receive a PASS (P) grade in this Knowledge of Subject section, you must have an average score of 70% or above, adjusted on a class curve, for all quizzes and final examinations, with the final exam being double-weighted. Exceptional reports will be awarded to the top 10% of the class in Knowledge of Subject. In Progress (IP) grades are assigned to students who require additional improvement. NOT PASS (NP) grades are assigned students whose average written score is below 70%.

Students are reminded of the School’s *Ethics Code* and *Rules for Student Conduct During Written Examinations*. Use of “review packs” or other unauthorized materials is also considered unethical behavior. Offenders will receive a Not Pass grade and referral to the Hearing Officer. All authorized materials for this course will be posted on CCLE, and include the required textbook for this course.

b. Quality of Performance

Quality of Performance includes your Daily Lab Projects and Final Practical Exams. A crucial element of this course involves the acquisition of fine motor and hand-eye coordination skills sufficient to allow you to consistently complete high quality preparations and restorations in

simulated patient treatment settings. Natural abilities in this area will vary widely and the amount of effort you must invest to develop your skills can be significant. The following grading system is used for daily projects, mock and practical exams:

- 5** All criteria met with only minor deviations from established ideal standards. Procedures completed within defined time limits.
- 4** Slight deviation from ideal standards exists that do not significantly affect the form, function or esthetics of the result. Minor corrections may be required or desirable. Procedures completed with defined time limits.
- 3** Moderate deviation from ideal standards exists that may adversely affect the form, function or esthetics of the result. Moderate corrections are indicated or desirable, but the result is clinically acceptable.
- 2** Major deviation from ideal standards exists that cannot be corrected, require major correction, or that will negatively affect the prognosis of the tooth or restoration.

EVALUATION OF STUDENT PERFORMANCE

HONORS grade will be awarded for exceptional performance in BOTH Knowledge of Subject and Quality of Performance. You must pass both Knowledge of Subject and Quality of Performance to receive a PASS in this course. Otherwise, your course grade will be the lower performance of the two sections, either an In Progress (IP) or Not Pass (NP) grade.

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Critical deviation from ideal standards exists that leaves the tooth or surrounding hard or soft

tissues in worse condition than if no treatment had been rendered. Gross deviations that jeopardizes the health and prognosis of the tooth or surrounding hard or soft tissues.

To receive a PASS grade in this section you must attend and participate in all laboratory sessions, including seminars held by your bench instructor, and satisfactorily complete all lab projects in a timely manner. All projects are due on the same day as assigned. Late projects must be completed outside of class time, and presented for evaluation at the next lab session. Late projects will receive grades no higher than 3. All projects must be completed by the last laboratory session of the quarter to receive a passing grade in this course; an IP grade and tutorial projects will be assigned and completed in order to pass the course.

c. Daily Lab Projects

During lab sessions you will be working on projects that enhance your understanding and skill level with respect to specific operative concepts. Your attitude, attendance, and performance on these daily projects and mock exams will be considered along with practical exam results to determine your laboratory performance. It is important to note that scores on daily projects reflect the final result of your efforts after instructor recommendations or assistance and after corrective measures. Therefore, daily scores tend to be higher than those on mock or practical examinations.

d. Mock Exams

Mock exams serve two purposes. The first is that of a “practice” practical examination, allowing you to receive valuable feedback. The other is to provide you with a tooth preparation that will be restored during the practical examination. The mock exams will be timed and graded using the same criteria that will be used on the practical exams.

e. Practical Examinations (Skills Assessments)

All practical exams in this course are subject to the *Rules of Conduct for*

Preclinical Restorative Dentistry Practical Examinations, a copy of which will be posted online. To receive a PASS grade in this section, Quality of Performance, you must complete all daily projects and achieve an average score of 3.0 or above for all practical exams. Exceptional reports may be awarded to students in the top 10% of the class based on effort and execution of daily projects and practical exam performance. In Progress (IP) grades will be assigned to students averaging below 3.0 except for the final quarter of this 6-quarter series. Upon satisfactory completion of the “conditions” required with an IP grade, a PASS grade will be granted. Unsatisfactory performance will result in a NOT PASS grade.

Only H, P, and NP grades are used in the final course (RFE 211); the In Progress grade is not used.

VIII. REMEDIATION CRITERIA

Remediation for Not Pass grades in Knowledge of Subject shall require satisfactory performance on a new written examination of the same course material. A NP/P grade will be issued for satisfactory remediation. A recommendation to repeat the course will be issued for unsatisfactory remediation.

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Remediation for Not Pass grades in Quality of Performance will be the satisfactory completion of additional lab projects and practical examination. A NP/P grade will be issued in this instance. A recommendation to repeat the course will be issued for unsatisfactory remediation.

IX. LABORATORY REGULATIONS a. Observe safety rules

You must wear disposable gowns, gloves, and protective eyewear during

all operating procedures using the dental handpiece or other rotary instruments and machines, e.g. model trimmers, lathes, etc. Handle dangerous and volatile chemicals appropriately and in fume hoods as necessary. Be especially careful of flames and flammable liquids. Wear closed-toed shoes in the laboratory.

b. Observe housekeeping guidelines

Keep your bench area clean. Clean and organize all common areas. Report faulty equipment and hazardous conditions such as wet floors, etc.

c. Maintain a good learning environment

Prepare and organize only necessary armamentarium for assigned procedure. Personal computers may be used for course materials, but not for audio or video entertainment. No radios or headphones. Take 5 – 10 minute breaks after every 60 – 90 minutes of focused effort. No food or beverages are permitted in the lab per OSHA regulations.

X. LABORATORY REGULATIONS

Due to the difficulty of mastering the various operative procedures taught in this course, some students may benefit from additional assistance outside of normal course hours to stay current with assignments. These sessions are NOT extensions of the course, but are specifically aimed at clarification, targeting weaknesses, and improving your technical skills with an experienced tutor. Tutors do not and will not grade daily projects.

The tutorial sessions are 5:45 – 8:00 PM on Monday evenings in the fourth floor lab. Participation is limited to eight students each session, with priority given to students who are requested to attend by the course chair or lab instructor. When space is available, any student can voluntarily sign up until the maximum has been reached.

UCLA SCHOOL OF DENTISTRY: COMPETENCIES (Revised 2016)

Humanistic Environment

1. Graduates **must** understand the value of working collaboratively in an atmosphere of cordiality, collegiality, and professionalism. (CODA Std. 1-3)

Intent:

The dental education program should ensure collaboration, mutual respect, cooperation, and harmonious relationships between and among administrators, faculty, students, staff, and alumni. The program should also support and cultivate the development of professionalism and ethical behavior by fostering diversity of faculty, students, and staff, open communication, leadership, and scholarship.

Examples of evidence to demonstrate compliance may include:

- Established policies regarding ethical behavior by faculty, staff and students that are regularly (reviewed and readily available (
- Student, faculty, and patient groups involved in promoting diversity, professionalism and/or (leadership support for their activities (
- Focus groups and/or surveys directed towards gathering information on student, faculty, patient, (and alumni perceptions of the cultural environment (**Critical Thinking** (

2. Graduates **must** be competent in applying critical thinking and problem-solving in the

comprehensive care of patients, scientific inquiry and research methodology. (CODA Std. 2-9)

Intent:

Throughout the curriculum, the educational program should use teaching

and learning methods that support the development of critical thinking and problem solving skills

Examples of evidence to demonstrate compliance may include:

- Explicit discussion of the meaning, importance, and application of critical thinking (
- Use of questions by instructors that require students to analyze problem etiology, compare and (evaluate alternative approaches, provide rationale for plans of action, and predict outcomes (
- Prospective simulations in which students perform decision-making (
- Retrospective critiques of cases in which decisions are reviewed to identify errors, reasons for (errors, and exemplary performance (
- Writing assignments that require students to analyze problems and discuss alternative theories (about etiology and solutions, as well as to defend decisions made (
- Asking students to analyze and discuss work products to compare how outcomes correspond to (best evidence or other professional standards (
- Demonstration of the use of active learning methods, such as case analysis and discussion, (critical appraisal of scientific evidence in combination with clinical application and patient factors, and structured sessions in which faculty and students reason aloud about patient care (

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3. Graduates **must** demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self- directed, lifelong learning. (CODA Std. 2-10)

Intent:

Educational program should prepare students to assume responsibility for their own learning. The education program should teach students how to learn and apply evolving and new knowledge over a complete career as a health care professional. Lifelong learning skills include student assessment of learning needs.

Examples of evidence to demonstrate compliance may include:

- Students routinely assess their own progress toward overall competency and individual (competencies as they progress through the curriculum (
 - Students identify learning needs and create personal learning plans (
 - Students participate in the education of others, including fellow students, patients, and other (health care professionals, that involves critique and feedback (**Biomedical Sciences** (
4. Graduates **must** demonstrate an in-depth understanding of basic biological principles, consisting of a core of information on the fundamental structures, functions and interrelationships of the body systems. (CODA Std. 2-11)
 5. Graduates **must** demonstrate an understanding of biomedical knowledge emphasizing the oro-facial complex as an important anatomical area existing in a complex biological interrelationship with the entire body. (CODA Std. 2-12)
 6. Graduates **must** demonstrate a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders. (CODA Std. 2-13)a
 7. Graduates **must** be competent in the application of biomedical science knowledge in the delivery of patient care. (CODA Std. 2-14)

Intent: *Biological science knowledge should be of sufficient depth and scope for graduates to apply advances in modern biology to clinical practice and to integrate new medical knowledge and therapies relevant to oral health care.*

Behavioral Sciences

8. Graduates **must** be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health. (CODA Std. 2-15)
9. Graduates **must** be competent in managing a diverse patient population. They must have the interpersonal and oral and written communications skills to function successfully in a multicultural work environment. (CODA Std. 2-16)

8

Intent:

Students should learn about factors and practices associated with disparities in health status among subpopulations, including but not limited to, racial, ethnic, geographic, or socioeconomic groups. In this manner, students will be best prepared for dental practice in a diverse society when they learn in an environment characterized by, and supportive of, diversity and inclusion. Such an environment should facilitate dental education in:

- basic principles of culturally competent health care; (*
- recognition of health care disparities and the development of solutions; (*
- the importance of meeting the health care needs of dentally underserved populations, and; (*

- *the development of core professional attributes, such as altruism, empathy, and social (accountability, needed to provide effective care in a multi-dimensionally diverse society. (Practice Management and Health Care Systems (*
10. Graduates **must** be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services. (CODA Std. 2-17)
 11. Graduates **must** be competent in applying the basic principles and philosophies of practice management, various models of oral health care delivery, and how to function successfully as the leader of the oral health care team. (CODA Std. 2-18)
 12. Graduates **must** be competent in communicating and collaborating with other members of the health care team to facilitate the provision of health care. (CODA Std. 2-19) *Intent: Students should understand the roles of members of the health care team and have educational experiences, particularly clinical experiences, that involve working with other healthcare professional students and practitioners. Students should have educational experiences in which they coordinate patient care within the health care system relevant to dentistry.*

Ethics and Professionalism 13. Graduates **must** be competent in the application of the principles of ethical decision making and professional responsibility. (CODA Std. 2-20)

Intent:

Graduates should know how to draw on a range of resources, among which are professional codes, regulatory law, and ethical theories. These resources should pertain to the academic environment, patient care, practice management and research. They should guide judgment and action for issues that are complex, novel, ethically arguable, divisive, or of

public concern.

Clinical Sciences

14. Graduates **must** be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care. Patient care **must** be evidenced- based, integrating the best research evidence and patient values. (CODA Std. 2-21)

9

Intent:

The education program should introduce students to the basic principles of clinical and translational research, including how such research is conducted, evaluated, applied, and explained to patients.

15. Graduates **must** be competent in providing oral health care within the scope of general dentistry to patients in all stages of life. (CODA Std. 2-22)

16. Graduates **must** be competent in providing oral health care within the scope of general dentistry, including: (CODA Std. 2-23)

- a. patient assessment, diagnosis, comprehensive sequential and alternative treatment planning, prognosis, and informed consent;
- b. screening and risk assessment for head and neck cancer;
- c. recognizing the complexity of patient treatment, modify treatment plans when indicated, and identify when referral is appropriate;
- d. health promotion and disease prevention;
- e. local anesthesia and management of pain and anxiety;

- f. management of dental caries;
- g. restoration of teeth;
- h. communication and management of dental laboratory procedures in support of patient care;
- i. replacement of teeth including fixed, removable and dental implant prosthodontic therapies;
- j. management of periodontal disease;
- k. management of pulpal and periradicular diseases and conditions;
- l. management of non-odontogenic oral soft and hard tissue conditions;
- m. management of conditions requiring reparative surgical procedures on the hard and soft tissues;
- n. prevention and management of dental emergency situations encountered in the practice of general dentistry;
- o. management of occlusal or skeletal abnormalities;
- p. evaluation of treatment outcomes, recall strategies, and prognosis; and
- q. recognition and referral of TMD and orofacial pain.

17.

Intent: Graduates should be able to evaluate, assess, and apply current and emerging science and technology. Graduates should possess the basic knowledge, skills, and values to practice dentistry, independently, at the time of graduation. The school

identifies the competencies that will be included in the curriculum based on the school's goals, resources, accepted general practitioner responsibilities and other influencing factors. The comprehensive care experiences provided for patients by students should be adequate to ensure competency in all components of general dentistry practice. Programs should assess overall competency, not simply individual competencies in order to measure the graduate's readiness to enter the practice of general dentistry.

18. Graduates **must** be competent in assessing the treatment needs of patients with special needs. (CODA Std. 2-24) Intent:

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An appropriate patient pool should be available to provide experiences that may include patients whose medical, physical, psychological, or social situations make it necessary to consider a wide range of assessment and care options. The assessment should emphasize the importance of non-dental considerations. These individuals include, but are not limited to, people with developmental disabilities, cognitive impairment, complex medical problems, significant physical limitations, and the vulnerable elderly. Clinical instruction and experience with the patients with special needs should include instruction in proper communication techniques and assessing the treatment needs compatible with the special need.

18. Graduates **must** be prepared to interact with and treat culturally diverse populations in a community-based clinical environment. (CODA Std. 2-25) Intent: *Service learning experiences and/or community-based learning experiences are essential to the development of a culturally competent oral health care workforce. The interaction and treatment of diverse populations in a community-based clinical environment adds a special dimension to clinical learning experience and engenders a life-long appreciation for the value of community service.*

19. Graduates **must** be able to manage common medical emergencies and be continuously certified in basic life support (B.L.S.), including cardiopulmonary resuscitation. (CODA Std. 5-6)

COURSE SYLLABUS

Course Number and Title: Clinical Restorative Dentistry; CL402.02b,c; CL 403.02s,a,b,c; CL404.02s,a,b,c

Course Type: Clinical

Quarter and Year: Winter, Spring-Second Year

Summer, Fall, Winter, Spring-Third Year

Summer, Fall, Winter, Spring-Fourth Year Course Location:

Westwood Campus, Clinic Floors

I. Course Chair

Name: Marc Hayashi, DMD Office: UCLA School of Dentistry 10833 Le Conte Ave

Box 951668 Los Angeles, CA 90095-1668 Phone: 310-825-4855 E-mail: mhayashi@dentistry.ucla.edu Office: 23-088G Office Hours: TBA

II. Course Faculty

N/A

III. Course Description

Clinical Restorative Dentistry consists of a competency-based curriculum that spans 10 quarters, starting in the winter of the second year. The course consists of pre-requisites, case assessments, competency exams, and a final OSCE that can be attempted in the winter and spring quarters of the fourth year. The course is designed to provide students with an adequate number of clinical experiences to be able to treat patients

confidently and independently in restorative dentistry at the time of graduation.

IV. Course Organization and Format

Students are assigned a set of patients and are required to complete a minimum number of pre- requisites, case assessments, and competency exams while treating patients in the Restorative Dentistry clinic. Instructional material is provided over the course of the first two years in the preclinical lectures/laboratory, as well as during quarterly class meetings and online through CCLE. Prior to each clinical session, students are expected to have reviewed class lectures/notes/manuals/textbooks regarding their appointment and procedure.

SOD Competencies Addressed	<i>16a, 16f, 16g, 16h</i>
<p>Course Goals/Objectives – Students who successfully complete this course will be able to</p> <ul style="list-style-type: none"> . Identify, treat and manage caries. . Restore teeth with direct and indirect restorations. . Make a patient assessment and diagnosis, provide treatment options and modify the 	

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indicated, and obtain informed consent.

- **Communicate with the dental laboratory in the fabrication of restorations.**
- **Demonstrate the ability to self-assess their own progress.**

- **Provide feedback and critiques of fellow students with direct and indirect restorations.**
- **Work independently as demonstrated via several Competency Examinations (1 of each of the following: Class II, Class III, Class V, and Full Coverage Restoration), which must be completed prior to challenging the Restorative Dentistry Comprehensive Competency Exam/OSCE.**

V. Required Texts/Recommended Readings

Heymann HO, et al. *Sturdevant's Art and Science of Operative Dentistry*. 6th Edition. Shillingburg HT, et al. *Fundamentals of Fixed Prosthodontics, Fourth Edition*. UCLA Dental Clinic Handbook

VI. Schedule of Classes

Students sign up for Clinical Restorative Dentistry appointments individually (Mon-Fri: 9AM-12PM or 2- 5PM; Tues Night: 6-9PM). They are then covered by a Restorative Dentistry faculty member assigned to them, and guided as necessary throughout the appointment, culminating in the successful execution of the procedure in the Restorative Clinic.

VII. Grading Rubric/Evaluation Criteria

All of the following course requirements must be successfully completed by the time of graduation: 1. Pre-Requisites

- 25 Direct Restorations (includes Direct Restoration Case Assessments with a Passing grade)
- 2 Foundation Case Assessments
- 5 Indirect Restorations (of which one must be partial coverage; includes Indirect Restoration Case Assessments with a Passing grade)

- 2nd/4th Year Assist-Direct
- 2nd/4th Year Assist-Indirect
- RVU total: 850

2. Case Assessments

- 2 Foundation Case Assessments (same as above)
- 3 Direct Case Assessments (1 Class II, 1 Class III and 1 Class V)

i. Initial or replacement c. 2 Indirect Case Assessments (Must include 1 full coverage restoration)

i. Initial or replacement *Note:* Case Assessments must achieve a Passing Grade to count towards the pre-requisite total. If an NP is received, RVU's will be still be awarded, but it will not count towards the minimum number required to challenge the Summative Assessment/Competency Exam.

3. Competency Exams a. 1 Class II Direct Restoration (Must Pass the 3 Direct Case Assessments before

challenging Competency) i. Initial lesion, has occlusal/proximal contact

b. 1 Class III Restoration (Must Pass the 3 Direct Case Assessments before challenging Competency)

i. Initial or replacement, has proximal contact c. 1 Class V Restoration (Must Pass the 3 Direct Case Assessments before challenging

Competency)

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i. Initial lesion d. 1 Full Coverage Restoration (Must Pass minimum of 2 Indirect Case Assessments, one of

which must be full coverage, before challenging Competency) i. No prior indirect restoration, has occlusal contacts and at least 1 proximal

contact e. Restorative Dentistry Comprehensive Competency Exam/OSCE

Grades will be assigned quarterly based upon RVU progress toward graduation as follows: D2 - Spring: 5 D3 - Summer: 25; Fall: 50; Winter: 150; Spring: 250 D4 - Summer: 350; Fall: 500; Winter: 750; Spring: 850

Grading Criteria:

Honors-significantly exceeding minimum RVU's for a Pass/top 20% Pass-at or above expected RVU requirement IP-does not meet minimum RVU requirement No Pass-more than 2 quarters behind minimum RVU requirement for a Pass NP/P-met minimum RVU's for Pass

Note: Students who are behind the expected quarterly requirements will meet with the Course Chair and their Group Practice Director for counseling and guidance. The Group Practice Directors are all members of the Section of Restorative Dentistry and work closely with the Course Chair to provide guidance for deficient students.

Restorative Value Units:

Direct Restorations	
Amalgam 1 surf	6
Amalgam 2 surf	10
Amalgam 3 surf	14

Amalgam 4+ surf	18
Composite or Glass Ionomer 1 surf	4
Composite or Glass Ionomer 2 surf	6
Composite or Glass Ionomer 3 surf	8
Composite 4+ surf	10
Composite Veneer	12
Direct Gold Foil	17
Preventive Resin Restoration	2
Sealant	1*
Foundation Restorations	
Amalgam or Composite Core	10
Pre-Fabricated Post and Core	12
Build-Up (Pin)	12
Cast Dowel Core	15
Esthetic Procedures	
Vital Bleaching (per arch)	15*

Esthetic Contouring (per tooth)	8
Indirect Restorations	
FGC/PFM	25
Partial Coverage Gold	50
Partial Coverage Ceramic	40
All Ceramic Crown	40
CAD/CAM Restoration	50
Student Performs Lab Work (Gold/PFM)	15
Miscellaneous Procedures	
Sedative Filling	2
Caries Control	2
COAD	8
Occlusal Guard	25
Internal Bleaching (per appt)	6
Deprogrammer	25

Equilibration (Complex)	25
Diagnostic Wax-Up (per unit)	5**
Photography (Direct Case)	5***
Photography (Indirect Case)	10***

*Point Maximums: Sealants (50); Vital Bleaching (150); Photography (65);
2nd/4th Year Assist-1 Direct and 1 Indirect (75)

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**Diagnostic Wax-Ups (50 point maximum): Must be from one of your patients of record and on the duplicated cast. The wax-up cast needs to be mounted, present a legitimate need for a wax-up, and reviewed by a casting control instructor and signed on the appropriate *Restoration Record Cards* (located in Restorative Office).

***Photography (65 point maximum): 5 points for Direct, 10 points for Indirect. Submitted online through CCLE.

Note on Combined Advanced Prosth Coverage Cases: Certain cases can be covered by both Restorative and Advanced Prosth. RVU's awarded for these cases are as follows:

Survey Crowns (75 points/unit) Retrofit Survey Crown (75 points/unit)
FPD Abutment (25 points/unit) Pontic (25 points/unit) Implant and Restoration (100 points/unit) Implant Restoration Only (60 points/unit)

To be eligible for the Single Tooth Replacement Competency with Advanced Prosth, students can complete any of the following: 2 indirect restoration case assessments, prior completion of an implant restoration, or prior completion of a fixed partial denture. RVU's will be earned for all tooth replacement cases and case assessments, with the exception of Competency Exam's. In these cases, the Advanced Prosth

requirement will be satisfied, but RVU's will not be earned. If all requirements in Advanced Prosth or Restorative have been satisfied, and the student wants to transfer points to the other discipline, they can do so.

Performance Evaluations:

Throughout the time in clinic, students may receive additional feedback from faculty in the form of a Green, Yellow, or Pink Slip.

8. Green Slip: Student treatment rendered exceptionally well.
9. Yellow Slip: Student is not at the average level of their peers and in need of additional guidance.
10. Pink Slip: Student is in urgent need of remediation.

Note: All forms are triplicate, located on the GPA's desk, and will be given day of treatment. Top copy goes to the student, bottom two goes to the Restorative Office. For Yellow and Pink Slips, the Course Chair will evaluate the case, get input from the involved faculty, student, and students GPD. An individualized remediation plan will then be developed based on the apparent needs. For multiple or severe offenses, a grade of IP or NP may be assigned for the quarter.

VIII. Restorative Dentistry Comprehensive Competency Exam/OSCE

All students must also successfully complete a final Competency Exam (70% or higher for a Pass) in Restorative Dentistry prior to receiving clearance for graduation. The exam (4 hours in duration) can be challenged only after satisfactorily completing all of the pre-requisites and passing all of the required case assessments and competency exams. The exam takes place in the preclinical laboratory and includes a comprehensive assessment of the student's ability to perform the following: assessment of patient's medical history and its impact on dental care; properly diagnose and manage dental caries; evaluate radiographs; develop a restorative treatment plan with alternatives,

including risks/benefits; communicate with the dental laboratory in the fabrication of restorations; assess restorative preparations, restorations and treatment execution. The format will be written short answer/essay

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questions, and will involve rotation through stations set up with various questions on clinical scenarios, typodont cases, and radiographs. The exam will be available near the end of winter quarter (D4 year) and the spring quarter, and will be graded by the Course Chair. Sign ups will be posted in the Restorative Office when available.

IX. Remediation

Clinical Competency Exams: Students who are unsuccessful in completing a Clinical Competency Exam can attempt one more time to Pass the Competency Exam. After failing a second attempt, the student must complete a remediation procedure outside of clinic prior to challenging another Competency Exam. The remediation will mimic the Competency Exam with respect to standards and final grades; however, the instructor and student will work as a team in achieving the final result. After finishing the remediation session, the student will be allowed to challenge another competency examination. If the student again fails the competency exam, they will be referred to the Student Performance Committee.

Restorative Dentistry Comprehensive Competency Exam/OSCE: Students who are unsuccessful in completing the OSCE will receive individualized remediation topics based on the answers provided in the exam. Students will complete a review of the topics chosen, and provide a brief presentation to the Course Chair demonstrating understanding of the material.

X. Clinic Regulations and Expectations

Standard Precautions are to be followed at all times. Proper PPE must

also be adorned at all times, and personal hygiene maintained. Freshly laundered scrubs are to be worn in clinic, with disposable gowns and closed toed shoes. Each student must utilize some form of protective eyewear at all times. This can be safety glasses, prescription glasses, or magnification loupes. The eyewear must be a sport frame or have a side shield. Disposable eye shields are available at the GPA's desk in clinic as needed. Please see the Dental Clinic Handbook for additional information.

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UCLA SCHOOL OF DENTISTRY: COMPETENCIES (Revised 2016)

Humanistic Environment

10. Graduates **must** understand the value of working collaboratively in an atmosphere of cordiality, collegiality, and professionalism. (CODA Std. 1-3) Intent: *The dental education program should ensure collaboration, mutual respect, cooperation, and harmonious relationships between and among administrators, faculty, students, staff, and alumni. The program should also support and cultivate the development of professionalism and ethical behavior by fostering diversity of faculty, students, and staff, open communication, leadership, and scholarship.* Examples of evidence to demonstrate compliance may include:

Established policies regarding ethical behavior by faculty, staff and students that are regularly (reviewed and readily available (

Student, faculty, and patient groups involved in promoting diversity, professionalism and/or (leadership support for their activities (

Focus groups and/or surveys directed towards gathering information on student, faculty, (patient, and alumni

perceptions of the cultural environment (**Critical Thinking** (

11. Graduates **must** be competent in applying critical thinking and problem-solving in the comprehensive care of patients, scientific inquiry and research methodology. (CODA Std. 2-9) Intent:

Throughout the curriculum, the educational program should use teaching and learning methods that support the development of critical thinking and problem solving skills Examples of evidence to demonstrate compliance may include:

Explicit discussion of the meaning, importance, and application of critical thinking (

Use of questions by instructors that require students to analyze problem etiology, compare and (evaluate alternative approaches, provide rationale for plans of action, and predict outcomes (

Prospective simulations in which students perform decision-making (

Retrospective critiques of cases in which decisions are reviewed to identify errors, reasons for (errors, and exemplary performance (

Writing assignments that require students to analyze problems and discuss alternative theories (about etiology and solutions, as well as to defend decisions made (

Asking students to analyze and discuss work products to compare how outcomes correspond to (best evidence or other professional standards (

Demonstration of the use of active learning methods, such as case analysis and discussion, (critical appraisal of scientific evidence in combination with clinical application and patient

factors, and structured sessions in which faculty and students reason aloud about patient care (

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- Graduates **must** demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning. (CODA Std. 2-10) Intent: *Educational program should prepare students to assume responsibility for their own learning. The education program should teach students how to learn and apply evolving and new knowledge over a complete career as a health care professional. Lifelong learning skills include student assessment of learning needs.* Examples of evidence to demonstrate compliance may include:

Students routinely assess their own progress toward overall competency and individual (competencies as they progress through the curriculum (

Students identify learning needs and create personal learning plans (

Students participate in the education of others, including fellow students, patients, and other (health care professionals, that involves critique and feedback (**Biomedical Sciences** (

- Graduates **must** demonstrate an in-depth understanding of basic biological principles, consisting of a core of information on the fundamental structures, functions and interrelationships of the body systems. (CODA Std. 2-11)
- Graduates **must** demonstrate an understanding of biomedical knowledge emphasizing the oro-facial complex as an important

anatomical area existing in a complex biological interrelationship with the entire body. (CODA Std. 2-12)

- Graduates **must** demonstrate a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders. (CODA Std. 2-13)
- Graduates **must** be competent in the application of biomedical science knowledge in the delivery of patient care. (CODA Std. 2-14)
Intent: *Biological science knowledge should be of sufficient depth and scope for graduates to apply advances in modern biology to clinical practice and to integrate new medical knowledge and therapies relevant to oral health care.* **Behavioral Sciences**
- Graduates **must** be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health. (CODA Std. 2-15)
- Graduates **must** be competent in managing a diverse patient population. They must have the interpersonal and oral and written communications skills to function successfully in a multicultural work environment. (CODA Std. 2-16)

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Intent:

Students should learn about factors and practices associated with disparities in health status among subpopulations, including but not limited to, racial, ethnic, geographic, or socioeconomic groups. In this manner, students will be best prepared for dental practice in a diverse society when they learn in an environment characterized by, and supportive of, diversity and inclusion. Such an environment should facilitate dental education in:

13. *basic principles of culturally competent health care; (*
14. *recognition of health care disparities and the development of solutions; (*
15. *the importance of meeting the health care needs of dentally underserved populations, and; (*
16. *the development of core professional attributes, such as altruism, empathy, and social (accountability, needed to provide effective care in a multi-dimensionally diverse society. (Practice Management and Health Care Systems (*
19. Graduates **must** be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services. (CODA Std. 2-17)
20. Graduates **must** be competent in applying the basic principles and philosophies of practice management, various models of oral health care delivery, and how to function successfully as the leader of the oral health care team. (CODA Std. 2-18)
21. Graduates **must** be competent in communicating and collaborating with other members of the health care team to facilitate the provision of health care. (CODA Std. 2-19) Intent: *Students should understand the roles of members of the health care team and have educational experiences, particularly clinical experiences, that involve working with other healthcare professional students and practitioners. Students should have educational experiences in which they coordinate patient care within the health care system relevant to dentistry. Ethics and Professionalism*
22. Graduates **must** be competent in the application of the principles of ethical decision making and professional responsibility. (CODA Std. 2-20) Intent: *Graduates should know how to draw on a range of resources, among which are professional codes,*

regulatory law, and ethical theories. These resources should pertain to the academic environment, patient care, practice management and research. They should guide judgment and action for issues that are complex, novel, ethically arguable, divisive, or of public concern. **Clinical Sciences**

23. Graduates **must** be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care. Patient care **must** be evidenced-based, integrating the best research evidence and patient values. (CODA Std. 2-21)

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Intent:

The education program should introduce students to the basic principles of clinical and translational research, including how such research is conducted, evaluated, applied, and explained to patients.

20. Graduates **must** be competent in providing oral health care within the scope of general dentistry to patients in all stages of life. (CODA Std. 2-22)

21. Graduates **must** be competent in providing oral health care within the scope of general dentistry, including: (CODA Std. 2-23)

patient assessment, diagnosis, comprehensive sequential and alternative treatment planning, prognosis, and informed consent;

screening and risk assessment for head and neck cancer;

recognizing the complexity of patient treatment, modify treatment plans when indicated, and identify when referral is appropriate;

health promotion and disease prevention;

local anesthesia and management of pain and anxiety;

management of dental caries;

restoration of teeth;

communication and management of dental laboratory procedures in support of patient care;

replacement of teeth including fixed, removable and dental implant prosthodontic therapies;

management of periodontal disease;

management of pulpal and periradicular diseases and conditions;

management of non-odontogenic oral soft and hard tissue conditions;

management of conditions requiring reparative surgical procedures on the hard and soft tissues;

prevention and management of dental emergency situations encountered in the practice of general dentistry;

management of occlusal or skeletal abnormalities;

evaluation of treatment outcomes, recall strategies, and prognosis; and

recognition and referral of TMD and orofacial pain.

22. Intent: *Graduates should be able to evaluate, assess, and apply current and emerging science and technology. Graduates should*

possess the basic knowledge, skills, and values to practice dentistry, independently, at the time of graduation. The school identifies the competencies that will be included in the curriculum based on the school's goals, resources, accepted general practitioner responsibilities and other influencing factors. The comprehensive care experiences provided for patients by students should be adequate to ensure competency in all components of general dentistry practice. Programs should assess overall competency, not simply individual competencies in order to measure the graduate's readiness to enter the practice of general dentistry.

23. Graduates **must** be competent in assessing the treatment needs of patients with special needs. (CODA Std. 2-24) Intent:

9

An appropriate patient pool should be available to provide experiences that may include patients whose medical, physical, psychological, or social situations make it necessary to consider a wide range of assessment and care options. The assessment should emphasize the importance of non-dental considerations. These individuals include, but are not limited to, people with developmental disabilities, cognitive impairment, complex medical problems, significant physical limitations, and the vulnerable elderly. Clinical instruction and experience with the patients with special needs should include instruction in proper communication techniques and assessing the treatment needs compatible with the special need.

18. Graduates **must** be prepared to interact with and treat culturally diverse populations in a community-based clinical environment. (CODA Std. 2-25) Intent: *Service learning experiences and/or community-based learning experiences are essential to the development of a culturally competent oral health care workforce. The interaction and treatment of diverse populations in a community-based clinical environment adds a special dimension to*

clinical learning experience and engenders a life-long appreciation for the value of community service.

19. Graduates **must** be able to manage common medical emergencies and be continuously certified in basic life support (B.L.S.), including cardiopulmonary resuscitation. (CODA Std. 5-6)

USC: Trimester 1: Trimester 2:

Equal credit in first 2 trimesters. Greater credit in trimester 3 for the first indirect module

Cariology and Microdentistry Module, Adhesive Direct Restorations Module

LLU: Restorative Dentistry I, II, III, IV

4 credits (2 didactic and 2 lab)

Restorative Dentistry I: Terminology, morphologic characteristics, and interrelationship of permanent teeth.

Restorative Dentistry II: Introduces mandibular movement. Relationship to the anatomy of teeth. Studies source, use, and manipulation of dental materials; and their physical properties relative to dentistry.

Restorative Dentistry III: Basic principles and techniques of cavity preparation and restoration of teeth with silver alloy and tooth-colored restorative materials. Studies source, use, and manipulation of dental materials; and their physical properties relative to dentistry.

Restorative Dentistry IV: Basic principles and techniques of cavity preparation and restoration of teeth with silver alloy and tooth-colored restorative materials. Studies the source, use, and manipulation of dental materials; and their physical properties relative to dentistry.

Single Casting: Basic tooth preparation for single cast restorations, including porcelain fused to metal, tissue management, impression techniques, and casting fabrication.

Fixed Pros I: The learning outcomes of the course are twofold: First, to give the student an entry-level understanding of diagnostic and treatment planning procedures. Second, to develop the didactic and manual skills to begin treatment of patients requiring simple

gold crowns, metal ceramic crowns, all ceramic crowns or fixed dental prosthesis, including any preparatory procedures required.

Implant Dentistry: Focuses on diagnostic and treatment-planning procedures associated with implant dentistry, the benefits of implant dentistry, the scientific and technical foundations for implant surgery and associated advanced procedures, the peri-implant tissues, postplacement care, and clinical complications associated with dental implants.

Operative Dentistry I: Introduces additional and advanced restorative procedures to broaden the knowledge and application skills beyond the preclinical courses.

Esthetic Dentistry: Introduces the student to many areas of esthetic dentistry, including intraoral photography, closing diastemas, proper placement of composites for resin veneers, CL IV restorations, whitening of teeth, use of glass ionomers, fabrication of esthetic provisional restorations, smile analysis, selection of luting and bonding materials.

Fixed Pros & Occlusion: Introduces additional techniques for fixed prosthodontics, treatment planning, and repair techniques for prosthetic failures.

iv. What didactic resources does your Operative course(s) utilize?

1. Required textbook(s)?

a. If Yes, which one(s)?

UA: Summitt's Fundamentals of Operative Dentistry
Sturdevant's Art and Science of Operative Dentistry

UBC: Summitt's

- ASDOH:** Powers, John and Ronald Sakaguchi. *Craig's Restorative Dental Materials*. 13th Edition. St. Louis: Mosby, 2006.
- Roberson, Theodore. *Sturdevant's Art and Science of Operative Dentistry*. 6th Edition. St. Louis: Mosby, 2006.
 - Summitt, James. *Fundamentals of Operative Dentistry: A Contemporary Approach*. 3rd Edition. Hanover Park: Quintessence, 2006.
- MWU:** Sturdevant's Art and Science of Operative Dentistry

OHSU: Summitt's Fundamentals of Operative Dentistry

UW: *Fundamentals of Operative Dentistry: A Contemporary Approach*, Fourth Edition, Hilton, Ferracane and Broome. Quintessence Publishing Co.

- WUHS:** All text books are digital and can be found on vitalsource.
Sturdevant's Art and Science of Operative Dentistry;
Summitt's Fundamentals of Operative Dentistry
- UNLV:** Sturdevant's Art and Science of Restorative Dentistry,
Fundamentals of Operative Dentistry-Summit,
- ROSE:** Yes: Sturdevants, Schillingburg, New Science of Strong
Materials
- UU:** Summitt's Fundamentals of Operative Dentistry
A Contemporary Approach, Fourth Edition (on vitalsource)
Preservation and Restoration of Tooth Structure, Third Edition
(on vitalsource)
- UOP:** Craig's Restorative Materials
- UCSF:** Sturdevant's Art and Science of Operative Dentistry, 6th
Edition, Mosby 2013--Not required to buy
- UCLA:** Sturdevant's Operative Dentistry, Shillingburg
Fundamental of Fixed Prosthodontics
- USC:** No
- LLU:** Fundamentals of Operative Dentistry, A Contemporary
Approach (4th edition)/ Hilton, Ferracane, Broome./
Quintessence Publish Co, Inc.

2. Lab manual

- UA:** On line U of A
- UBC:** YES, online course manuals
- ASDOH:** Yes
- MWU:** Yes
- UW:** Yes

OHSU: Resin Composite Technique Manual, Technique Manual for Dental Amalgam, Technique Manual for Gold Castings

WUHS: They are faculty made

UNLV: No

ROSE: No response

UU: We have a general manual for the Section of Dental Conservation and Restoration

UOP: Yes Written by Our faculty Dr. Jeff Miles

UCSF: No

UCLA: None

USC: Yes

LLU: Yes

3. Course packets

UA: On line

UBC: No response

ASDOH: No response

MWU: No

UW: Yes

OHSU: Syllabus

WUHS: N/A

UNLV: No

ROSE: Syllabus, Lear-A-Prep, Operative hand pieces and materials

UU: Syllabus include daily work and reading assignments

UOP: No

UCSF: Yes, on our CLE

UCLA: None

USC: No

LLU: Yes

4. Handouts

UA: On line

UBC: YES but mostly delivered online

ASDOH: Very few

MWU: On line

UW: Yes

OHSU: All lectures are recorded so that students can access them (Echo Cloud) and instructors are able to view the extent of which the lectures are being viewed.

WUHS: They are usually in the form of a PowerPoint, made by faculty.

UNLV: No

ROSE: Lesson plans, Break out activities, digital teaching aides. Is all active learning and involves **no lecturing**

UU: Yes

UOP: No

UCSF: Yes on our CLE

UCLA: Yes, powerpoint slides weekly

USC: Yes

LLU: No response

5. Live hands-on demonstrations

UA: Try to have a demonstration at the beginning of each lab session.

UBC: YES, in classroom when possible as UBC does not have a simulation lab. Simulation courses are taught in the clinic

ASDOH: Yes

MWU: Yes, many

- UW:** Yes
- OHSU:** Yes
- WUHS:** Faculty provide live demonstrations to the students. The students perform the step in the procedure after the faculty has demonstrated the step.
- UNLV:** Yes
- ROSE:** Occurs chair side as needed frequent and immediate intervention
- UU:** Yes, in the pre-clinical labs with an overhead camera
- UOP:** Yes
- UCSF:** Yes, we have live video in the preclinical lab, demo's done after lecture.
- UCLA:** Provided by bench instructors
- USC:** Some procedures
- LLU:** Very seldom

6. Self-made videos (private domain)

a. If Yes, would you be willing to share?

- UA:** Yes, yes
- UBC:** Yes, yes
- ASDOH:** We have few videos made by the faculty who taught and are teaching the course
- MWU:** Yes, yes
- UW:** We have a few videos not for sharing at this time
- OHSU:** Yes – would have to ask the authors, like Hide and Silvia about sharing.
- WUHS:** Yes

They are in a private collection and cannot be shared without an MOU.

UNLV: Yes

ROSE: Canvas, yes

UU: Yes, Dr. Joel Janis has several videos that he has created.
Yes, Dr. Janis would be willing to share.

UOP: Students make their own videos

UCSF: Yes, No

UCLA: Our dental students formed a production team, and are working with the faculty to produce a small library of videos on

- a) Waxing/dental anatomy
- b) Direct/operative preparations/restorations (only a couple)
- c) Indirect prep/restoration, die prep/casting (2-3 only)
- d) Miscellaneous (impression, cast fabrication/mounting etc.)

Yes, we are willing to share them.

USC: Yes, no

LLU: Yes

7. You Tube videos (public domain)

UA: Yes

UBC: No response

ASDOH: No

MWU: No

UW: N/ A

OHSU: No response

WUHS: No

UNLV: Yes

ROSE: No response

UU: Not routinely

- UOP:** Students watch on their own
UCSF: No
UCLA: None
USC: No
LLU: Yes

8. Professionally-made videos (purchased for private use)

- a. If Yes, how do you like them? Who made the video(s)?**
b. If No, would your school consider purchasing high quality videos?

- UA:** None, Perhaps depends on content and price.
UBC: No, DNK
ASDOH: Not at this time
MWU: No, possibly
UW: N/A
OHSU: No response
WUHS: No, yes
UNLV: No, maybe
ROSE: No, No
UU: No, Yes, it would be a consideration
UOP: No They would need to match our teaching
UCSF: No, not sure
UCLA: None, we have a audio/visual specialist who was hired for some of this, so I don't think we'd consider purchasing other videos.
USC: No, no
LLU: No, Depends on our needs and price

- v. What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.).**

UA: On line materials only.

UBC: Online manual with required reading list, supportive teaching material available and clinical requirements for each session

ASDOH: Recorded lectures

MWU: Online materials-pictures, drawings, videos, PPT's, manual, digital designs and curriculum.

UW: *The didactic portion of the course are managed nearly entirely and available via the website (Canvas)*

OHSU: All that is mentioned here

WUHS: Most course materials are distributed through our online platform, called RealizeIT. RealizeIT contains the lectures' didactic content and any other handouts (PDFs, Word Documents, etc.)

UNLV: Dental Articles

ROSE: Extensive pre class study materials

UU: Supplemental readings, a course manual

UOP: Sample preps

UCSF: We have required and supplemental reading, lectures/power point presentations on the CLE site

UCLA: Course packets/readers; supplemental readings, Clinic Manuals and Handbooks, Checklists.

USC: Manuals, posted reading assignments, posted presentations are available online through blackboard

LLU: Lab manuals

vi. Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth?

UA: Not at this time. Considering using DentaPrac.

UBC: YES, we recently introduced enamel bonding and dentin bonding exercises in extracted teeth for them to see the surface changes after acid etching. In addition, they have a "hands on" glass ionomer cements dispensing/mixing for them

to experience the critical point of the material (especially the restorative RMGICs) before jumping to the encapsulated version available in the clinic

ASDOH: No

MWU: Yes

Scanning of preparations/restorations at magnification

UW: We ask students to fit natural teeth into dentoform and practice on the manikin. We also take many photographs from the student's work and critique the procedures in the classroom using online polling software (Poll Everywhere). This is in addition to self-assessments performed regularly by the students. We also use social media to share interesting patient cases with students of all years. Students will have mini-experiments in the lab to understand some concepts better, for example, light curing or polymerization stress.

OHSU: I am not sure if they mean a simulation head, like the Frasacco ones, or something like DentSim. So maybe clarify here.

WUHS: Yes

We have the students work on the MOOG simulation units, where each student virtually prepares a tooth for the specific operative procedures. Students are also taught operative procedures using 3D models and CAD/CAM units.

UNLV: Practice on extracted teeth.

ROSE: Yes

Case based critical thinking and OSCE review, Also do TEE (Timed Efficiency Exercises) on plastic typodont teeth

UU: We have the students draw the teeth as part of dental anatomy. We have the students carve the teeth in wax as part of dental anatomy. We have the students

wax up the occlusal aspect of the tooth as part of dental anatomy as well as several projects waxing up the occlusal anatomy for the fixed prosthetics and dental occlusion courses.

UOP: YES Group learning with the Row instructor giving live demonstration.

UCSF: Some work is done on extracted teeth, (caries identification and removal, sealants/PRR)

UCLA: -practice on mounted extracted teeth
-Shear bond strength exercise

USC: No

LLU: Learn a prep, extracted teeth, hands on exercise with Mark light evaluation system

vii. Is there any OSCE exam in the operative course in your school?

1. If Yes, please describe.

UA: Yes, students must pass three clinical exams, class 3/4 composite, class 2 amalgam and class 2 composite. There are many preclinical exams, in the new curriculum maybe 15 or more.

UBC: No
ASDOH: Yes

Three OSCE exams

In Operative II, D1 year

Instrument OSCE and clinical OSCE. Identifying preparation restorations and techniques

Pre-clinical competency, operative OSCE, end of second year

Treatment planning, identifying Preparation and Restorations.

MWU: Yes. 50 Question in first year, instruments, burs, preparations. 70 station at end of second year, cumulative

for first two years.

UW: We have online (Canvas) quizzes every week with OSCE-like patient cases. Also, the mid-term and final exams may include an OSCE-like patient cases and a few questions in addition to regular exam questions. We use ExamSoft for these formal exams.

OHSU: There is a preclinical OSCE that contains operative material, but the exam does not focus solely on Operative Dentistry

WUHS: Yes
We have 3 OSCEs at the end of the D1, D2 and D3 years. The OSCE range from physically preparing/restoring a tooth to treatment planning a patient case.

UNLV: There is an OSCE style restorative instrument and equipment identification, care and use assessment. OSCE style questions/scenarios usually make up a portion of each written exam. This is done in digital format rather than having the student physically go from station to station.

ROSE: Yes
OSCE after each block and a capstone OSCE. These are all case based!

UU: Not for operative class, but yes for Fixed and Removable. And Yes for calibration of faculty. It is a series of preparations and restorations that match our grading criteria. The preparations and restorations are presented as photographs, on the typodont, and via descriptions.

UOP: Yes, MC questions about sample preps, photographs, X-Rays

UCSF: No

UCLA: In the D4 year before graduation, students take a 4 hour exam,

which includes short answer questions, and stations set up regarding various preps/impression/radiographs/materials that students commonly use in clinic. The exam also involves many treatment planning scenarios.

USC: No, Trimester V only

LLU: No OSCE for operative but formative and summative assessments every quarter as a bench mark to do certain procedures in the clinic on live patients

b. Operative Faculty:

i. How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?

UA: Didactic courses are taught by full time faculty, two. In the lab, there is a ratio of eight to one students to part time sessional faculty. Full time staff act as coordinators and floats usually there two available per lab.

UBC: 2 F/T, 1P/T

ASDOH: We have a full time and part time teaching the didactic portion. Two full time and 10 part time teaching the lab

MWU: 18 full time, 38 part time, (20 Monday and 18 Tuesday/Thursday.

UW: 1 F/T (director), usually a F/T co-director and 3-4 Affiliate Instructors

OHSU: Typically about 20 combined

WUHS: There are 7 full time 1 part-time pre-clinical faculty. These 8 faculty teach in all topics in dentistry.

UNLV: 4-5 full-time and 7-8 part-time. None of these faculty are exclusively operative faculty.

ROSE: 20 FT/5PT We just changed, and are in the process of transitioning to all faculty calibrated and teaching in

UU: In the preclinical lab we have varying faculty members

dependent on the semester.

Fall Semester we have 3 full time faculty members (including our Dean), 4 part time faculty members (including our Founding Dean), and then we have 2 of the clinical faculty rotate through the pre-clinical lab for the entire semester

Spring Semester we have 2 full time faculty members, 3 part time faculty members, and then we have 3 of the clinical faculty rotate through the pre-clinical lab for the entire semester

Summer Semester we have 2 full time faculty members, 3 part time faculty members, and then we have 3 of the clinical faculty rotate through the pre-clinical lab for the entire semester.

UOP: 2 Full time Course Directors

16 Row Instructors (14 p/t, 2 f/t)

UCSF: Two F/T, approximately 16 P/T faculty, although approximately 8 P/T per course

UCLA: We usually have 2-3 F/T faculty for pre-clinical courses, and anywhere from 6-8 P/T faculty members for these courses.

USC: More part time than full time. Exact number not known

LLU: One course director who lectures and about 8 full time and part time instructors to help out in the lab

ii. How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.)

UA: Formal group meetings twice per year. All staff have access to on line lab manual which have include photos of all projects. Labs have typodont examples of that day project at all stages

UBC: Instructors have access to all PDF presentations and are required to attend all lectures in the Restorative Dentistry modules. After each class they have a brief orientation on the clinical procedures of the day and what is expected from students

ASDOH: Working with another faculty in the row and meeting with them to go over the grading criteria

MWU: Weekly with PPT's of preps and grades

UW: All the faculty are encouraged to attend the didactic lectures. Before each laboratory session or exam, the course director go over the criteria of weekly lab. projects.

For the practical exams, we use peer-mentors (4th year students) who are blinded to the exam taker name. We have had consistent results using them in pairs. The course director will get involved in case of disagreement among two examiners on criteria.

OHSU: One of the main ways is through meetings and group grading sessions.

WUHS: Calibration is held weekly and completed through the use of presentation, photographs, typodonts, and past projects.

UNLV: Faculty are calibrated in every course at the introduction of each new procedure to the students. Faculty are calibrated through discussion, photos and typodont analysis.

ROSE: Review course material and videos, lesson plans, breakouts and shadow observe a seasoned faculty

UU: Monthly calibration sessions, morning huddle calibration sessions, having clinical faculty rotate through one of the pre-clinical labs each semester, and an annual, Sectional lecture and OSCE which is also given to new hires, this includes a formal lecture, an OSCE with typodonts, photographs and scenarios to calibrate assessment scores and professionalism

UOP: Apprenticeship with experienced faculty,
presentations,

Sample preps on typodont, Practice grading sessions.

UCSF: (formal presentations, photographs, typodonts, etc.)

Formal presentation

UCLA: In preclinic, most of the prep/restorations are graded on a scale of 1-5. Each course chair will calibrate the students/faculty in class lectures where they show them typical photos of work from each scoring categories. In operative course, the course faculties grade the exam projects together first, and the course chair will re-grade them by ensuring the rubrics are consistent.

If there is significant outlier amongst the grading faculties, the course chair will go over with them individually.

USC: Lectures mainly and evaluations of procedures on typodonts, Faculty calibration on criteria

LLU: After lecture-huddles as necessary, ppt presentation/discussion with photos for lab exam calibration

c. How are patient treatment plans developed?

i. Who is involved in the process?

UA: Patients are screened by a team consisting of a DDS4, DH3 and supervising dentist.

UBC: Student and Clinical Instructor sometimes with help from the student's clinical advisor

ASDOH: The CCU directors (Comprehensive Care Units)

MWU: The Clinical Care Coordinator in conjunction with the Clinical Care Faculty members

UW: In the current clerkship model, the students are divided into 4 groups. There are three to four advisors in each group. The students configure the initial treatment plans and finalize the treatment plan with their group advisors.

OHSU: The faculty who authenticates the treatment plan is responsible for examining the patient and verifying the consent.

WUHS: Students review treatment options and receive approval through their 3 group faculty members. Each student is assigned to a group that contains 3 faculty. These faculty review and approve all treatment plans.

UNLV: Patients are screened and accepted to the school based on medical and dental complexity. If they are accepted to the school they are assigned to one of the three clinic teams and given an appointment that is within 1-2 weeks from the screening appointment. These patients are assigned by the Team scheduler to be seen by a student that is available or that needs more patients. This student does the Comprehensive examination and then comes up with a treatment plan. They then meet with their full-time

clinical faculty mentor who goes over the treatment plan, makes changes to it if necessary and approves it. The mentor or Team Leader then decides if the student keeps the patient or if the patient should be seen by another student.

ROSE: 1 on 1 with attending faculty. There are 2 Tx plans possible: 1) disease control 2) definitive. Currently all faculty can approve a disease control Tx plan. Only PCL can approve definitive Tx Plans

UU: Students develop treatment plans after completing the comprehensive examination. Students consult with faculty and then present the treatment plan to the faculty member who supervised the examination. Simple treatment plans will only involve the student and the attending faculty. Perio faculty will be involved on any case with periodontal concerns. For cases involving complexity and/or specialty treatment, the corresponding faculty will be consulted in the preparation of the treatment plan.

UOP: Treatment plans in the clinic are developed jointly by the student and clinical instructor(s).

UCSF: Clinical General dentistry faculty, specialists for consults, and student.

UCLA: In our TPC. Perio, Restorative and Prosth.

USC: By GPDs

LLU: Complex screening process to determine patient's eligibility for pre-doc clinic then comprehensive Oral Examination. Screening attending faculty, students, clinical attending faculty, perio attending faculty, and other specialty attending faculty as needed for consultations.

ii. How are these patients then assigned to students?

UA: Patient is then assigned by a treatment coordinator to a student whose required educational experiences closely match the patient's required treatment. Sometimes, a patient may be treated by more than one student depending on the circumstances.

UBC: Patients are assigned to students before the treatment planning by their clinical advisor

ASDOH: The CCU director meets with the students and assigns the patients

MWU: Based on students' educational needs as identified in the axium marker report generated daily

UW: The patients are pre-screened at Dental Admission Clinic. Based on the complexity of the cases, the patients are distributed to 3rd year Clerkship clinic, 4th

year comprehensive GP clinic or Graduate Prosthodontics, Endodontics, Oral Surgery or Periodontics clinic. We also have a walk-in urgent care clinic.

OHSU: The patients are assigned to the students upon admission (determining suitability for School of Dentistry) and the students proceed to data gathering and treatment planning. One student is designated as the primary provider, but may invite a secondary provider to share in treatment—endo cases may be referred to a more experienced student, implant and removable prosthetic cases are sometimes shared. When a DS4 is assigned to an external rotation for an extended period of time (3 weeks), the secondary provider attends to the patients agreed upon needs.

WUHS: Patients are usually assigned randomly to students, where students are expected to care for that patient on a comprehensive basis. Students lacking experiences in certain procedures can request patients that have those procedures; these patients are also cared for in a comprehensive manner.

UNLV: See answer in part (i)

ROSE: They are not assigned to students. They are assigned to teams. First available appointment is scheduled. (Team Based Efficient Delivery Of Oral Health Care)

UU: Once a patient is accepted as a patient of the school they get the appropriate radiographs (typically an FMX). At that point they are entered into our queue to be assigned to a student. The Group Practice Leaders evaluate the needs of the patient and cross reference with the needs and availability of their students to make specific assignments.

UOP: Multiple ways this occurs, 1 – They are “passed

“down

from their “big brother / sister

They come in as new patients – are screened for dental needs, Patient special needs, Time available to come to the clinic, expectations. Final “assigning” is done by the Group Practice Leaders.

UCSF: Assigned at a new patient visit (NPV) screening visit to see if they are acceptable for the predoctoral clinic, then assigned to a student who does a comprehensive oral exam and develops a treatment plan MAY CHANGE.

UCLA: Students are assigned the patients from their GPD’s, who assign

based on assumed student need.

USC: GPD assigns based on student needs and experience level

LLU: All screened patients go into a pool to be assigned and the patient is assigned to a student in need bases by the patient coordinator.

iii) How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school?

UA: Varies, can be days, weeks or months depending on school breaks, treatment needs, etc.

UBC: 3 to 6 months

ASDOH: 2-3 weeks

MWU: The goal is to address acute care needs the same day the patient is scheduled for the screening appointment. New patients will typically be seen within 2 weeks for their first appointment in the clinic

UW: After treatment planning, the time varies depending on the patient. For example, the operative patients(fillings) may get an appointment within a week but those needing perio or prosthodontics consul may have to wait a few weeks.

OHSU: Our guideline allows for 40 days from time of initial contact to treatment plan; if a patient presents with an urgent need, that need is addressed first and then the patient undergoes the comprehensive exam and treatment planning. The extended time (40 days) is to allow for medical consults to be obtained; patients not needing medical clearance begin treatment much sooner.

WUHS: For most patients, from the screening appointment to the initial COE appointment, it can take anywhere from the same appointment to four weeks. It depends more on the scheduling and the availability of the student/patient than anything else. In TEAM clinic, we will see the patient for screening and straight forward COEs in 2 hours.

UNLV: see response in (i)

ROSE: Immediately. TBEDOHC

- UU:** Our current wait time is about 6-8 weeks from the time of screening/radiology until they are assigned and scheduled.
- UOP:** 1 Week + + +
- UCSF:** It is dictated by the student's schedule/availability, ideally within 1-2 weeks.
- UCLA:** Approx 2-3 months.
- USC:** It varies from patient to patient, from 1 week to 1 month
- LLU:** Screening appointment (1-2 hour), COE (4-8hours), then actual treatments may begin.

II. Cariology

a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?

i. If No, why not?

UA: Yes

UBC: No, due to false positives

ASDOH: Not in the pre-clinic. It is available in the clinic if needed

MWU: No, clinical Faculty is of the opinion that caries detecting dyes leads students to a false sense of security and oftentimes leads to overtreatment

UW: YES, mainly in clinic

OHSU: Yes

WUHS: We teach caries detecting dye protocol in the didactic content however it is not used in clinic. The reason is due to the high false positives associated with caries detecting dyes.

UNLV: In the pre-clinic caries detecting dyes are taught didactically only. Caries detecting dyes are available in the clinic but their use is not mandatory. Some students choose to use them during licensing examinations. In the clinic Caries Indicator, Green by Henry Schein is available

ROSE: Yeeees kind of sort of. We use Biofilm indicator

UU: It is available, but not part of the protocol. It hasn't come up as an important protocol, not that there isn't value, but so many other items need time and attention (due to the relative newness of our school).

UOP: No False negatives and positives

UCSF: Not as part of any protocol, it is not used in the pre-clinical lab but is available for use at the discretion of the clinical faculty on the clinic floor. It is not used per evidence of a large incidence of false positive results, thus leading to the possibility of over-treatment, removal of too much tooth structure/unnecessary removal of affected dentin

UCLA: too many false positives.

USC: It is available but rarely used. Can lead to unnecessary removal of more tooth structure (overtreatment)

LLU: Not routinely, too much false positive

ii. If Yes, is it mandatory or optional?

UA: Optional

UBC: No response

ASDOH: Optional

MWU: No response

UW: Optional

OHSU: Optional

WUHS: N/A

UNLV: see (i)

ROSE: Yes

UU: No response

UOP: No response

UCSF: Optional

UCLA: Optional

USC: Optional (not preferred by most faculty)

LLU: Optional

iii. If Yes, do students use them during licensing examinations?

UA: We do not give licensing exams. For the three clinical exams the use of dye is optional.

UBC: No response

ASDOH: It is their decision during the exam

MWU: No response

UW: It's also optional

OHSU: They may elect to do so

WUHS: Not to our knowledge.

UNLV: see response (i)

ROSE: No

UU: It isn't used during the licensing exams

UOP: No

UCSF: No

UCLA: No

USC: Usually not

LLU: They are advised not to use them.

iv. If Yes, please list the specific product(s), color(s), and manufacturer(s).

UA: Caries Detector Kuraray pink

UBC: No response

ASDOH: No response

MWU: No response

UW: Caries Indicator Green – Henry Schein

OHSU: Sable Seek Caries Indicator by Ultradent

WUHS: N/A

UNLV: see response (i)

ROSE: Bioclear

UU: When used, we use Sable Seek, (the green one) by

Ultradent

UOP: No response

UCSF: 2 Tone by Young, red. To Dye For by Roydent, blue

UCLA: No response

USC: To Dye For by Roydent Dental Products

LLU: Sable Seek, green, by Ultradent

b. Does your school use any caries detection devices as part of the clinical protocol?

i. If Yes, please list the specific product(s) and manufacturer(s).

ii. If Yes, please provide the clinical protocol.

UA: No

UBC: No response

ASDOH: No

MWU: No

UW: Not at this time, but we do have research projects on Optical Coherence Tomography, CariVu, DiagnoCam and other near infrared and fluorescent light based systems

OHSU: No

WUHS: They are not used in the clinic because the evidence does not unanimously support their use and instead we rely solely on clinical detection using the WHO probe and the ICDAS protocols.

UNLV: DIAGNOdent Pen by Kavo. DIAGNOdent Pens are available in the pre-clinic and clinic. Their use is encouraged but not mandatory. Manufacturer instructions are followed.

ROSE: Yes, Manufacture guide lines.
Suspect pits and fissures are tested with Diagnodent

UU: No response

UOP: No response

UCSF: Optional, yes we do have several instruments

available.

We do have diagnodent and transilluminators available in the clinic dispensary.

No specific clinical protocol that I am aware of.

UCLA: No

USC: Not yet

LLU: No

III. Materials and Techniques

a. Isolation:

i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?

1. If Yes, please describe.

UA: Cotton garmers and dry angles.

UBC: We strongly recommend the use of RD for all restorative treatments. When impossible to apply we recommend cotton roll/dry-angle isolation and suction/saliva ejector.

ASDOH: Isolite (limited number) and the triangles)

MWU: In case rubber dam is not feasible to place a composite resin the clinic protocol is to use amalgam or glass ionomer to restore. Faculty can also grant an exception to the use of the rubber dam and allow Isolite isolation.

UW: Isolite is used when the rubber dam isolation is not feasible, cotton roll Dri-Angle if no other option possible

OHSU: If the field can be managed with an Isolite, or biteblock, cord, cotton rolls, then it is allowed. If a lesion cannot be isolated to ensure a predictable bond, the student is encouraged to choose a suitable alternative material.

- WUHS:** The students are expected to notify the faculty regarding their concerns and/or difficulty isolating the area. The faculty then verifies the student's concern and gives permission for the student to isolate using an alternative method (dry angle/cotton rolls or Isodry unit, etc.).
- UNLV:** Specific permission to not use a rubber dam must be authorized by the covering faculty dentist. The Isodry system is available for situations where a rubber dam is not feasible.
- ROSE:** Dry angles and cotton rolls
- UU:** If a rubber dam is not feasible, we will have the students next employ an Iso-dry or Mr. Thirsty (best name ever). Retraction cord is often indicated for sub-gingival restorations. If the patient has trouble tolerating these devices, an assistant is obtained, the area is isolated as well as possible using high volume evacuation, cotton rolls, dri-angles as needed. Ideally, a discussion takes place with the patient educating them on the possibility of using a less moisture sensitive restorative material.
- UOP:** Isolite may be used where a rubber dam is not feasible. also Dry Angles with Sweflex may be used
- UCSF:** Isolite-we emphasize the use of the rubber dam, but when not possible we use the Isolite isolation system
- UCLA:** We use IsoLite as well.
- USC:** Isovac
- LLU:** Without rubber dam isolation, a composite restoration may not be performed. In that case, alternate type of dental materials that are not as moisture sensitive such

as amalgam or GI may be used to restore the tooth with other means of isolation including Iso-light, cotton roles, and dry angles.

b. Adhesives:

i. How many composite bonding systems do you have in your pre-doctoral clinic?

UA: one

UBC: one

ASDOH: One only OPti Bond Solo plus

MWU: No response

UW: No response

OHSU: No response

WUHS: one

UNLV: one

ROSE: 4

UU: 3

UOP: Two

6th generation – Two-step Self-etch

PRELUDE (Danville) w Link for dark cure

7th generation – One-step Self-etch

Scotchbond Universal Bond (3 M)

UCSF: Three although Optibond Solo Plus is the primary adhesive system used

UCLA: 1 (OptiBond FL)

USC: one

LLU: no response

1. List each system by classification, product name, and manufacturer:

- k. **4th generation – Three-step Etch-Rinse**
 - i. **Etch. Rinse. Prime. Bond.**
 - 1. e.g. – **Optibond (Kerr)**
- l. **5th generation – Two-step Etch-Rinse**
 - i. **Etch. Rinse. (Prime+Bond).**
 - 1. e.g. – **Prime & Bond (Dentsply)**
- m. **6th generation – Two-step Self-etch**
 - i. **(Etch+Prime). Bond.**
 - 1. e.g. – **Clearfil SE (Kuraray)**
- n. **7th generation – One-step Self-etch**
 - i. **(Etch+Prime+Bond).**
 - 1. e.g. – **Prompt L Pop (3M ESPE)**
- o. **8th generation – One-step Self-etch**
 - i. **(Etch+Prime+Bond).**
 - 1. e.g. – **Futura bond DC (VOCO America)**

UA: 7th generation-One-step Self etch

- i. (Etch+Prime+Bond)
 - 1) e.g.-Prompt L Pop (3M ESPE)
 - All Bond Universal Bisco

UBC: Uni dose, 3-step etch-and-rinse, Optibond FL (Kerr)

ASDOH: Opti solo bond

MWU: 5th generation – Two-step Etch-Rinse

- i. Etch. Rinse. (Prime+Bond). **Excite F- Ivoclar**
 - 1. e.g. – Prime & Bond (Dentsply)

6th generation – Two-step Self-etch. **Clearfil SE
Protect- Kuraray**

8th generation – One-step Self-etch. **Adhese SE
Universal-ceramics only**

UW: please see response in (2) below

OHSU: 4th generation – Three-step Etch-Rinse

- i. **Etch. Rinse. Prime. Bond.**
 - 1. e.g. – **Optibond FL (Kerr)**

WUHS: Kerr Optibond FL

- UNLV:** Scotchbond Universal by 3M
- ROSE:** Optibond SP & Peakbond
Scotchbond universal with total etch
- UU:** Peak Universal Bond (Ultradent)
Clearfil SE (Kuraray)
Futura bond DC (VOCO America) taught with a total etch, or selective etch technique
- UOP:** 6th generation – Two-step Self-etch
PRELUDE (Danville) w Link for dark cure
7th generation – One-step Self-etch
Scotchbond Universal Bond (3 M)
- UCSF:** 4th generation – Three-step Etch-Rinse -
i. Etch. Rinse. Prime. Bond. Yes, All-Bond 2
1. e.g. – Optibond (Kerr)
5th generation – Two-step Etch-Rinse-
Yes-Optibond Solo Plus and Prime and Bond
- UCLA:** 4th generation – Three-step Etch-Rinse
i. Etch. Rinse. Prime. Bond.
1. e.g. – Optibond FL (Kerr)
- USC:** 4th generation – Three-step Etch-Rinse
i. Etch. Rinse. Prime. Bond.
1. e.g. – Optibond (Kerr) Optibond FL
- LLU:** 4th generation – Three-step Etch-Rinse
i. Etch. Rinse. Prime. Bond. [Optibond \(Kerr\)](#)
1. e.g. – Optibond (Kerr)
6th generation – Two-step Self-etch [Clearfil SE \(Kuraray\)](#)

i. (Etch+Prime). Bond.

1. e.g. – Clearfil SE (Kuraray)

8th generation – One-step Self-etch

Scotchbond Universal (3M)

2. Are your students and faculty provided with specific indications and guidelines for their use?

UA: All composites placed must be bonded following manufacturer's directions.

UBC: A short video is available at their operator's desktop to guide instructors and students in regards to the material's optimal application.

ASDOH: Follow the manufacture instructions. Students trained in the pre-clinic to use the same material

MWU: eXcite F: for self and dual cure composite buildups.
Clearfil SE Protect: composites.
Adhese SE Universal: all ceramic crowns.

UW: ScotchBond Universal (3M ESPE)
Adhese Universal (Ivoclar Vivadent)

Students in the pre-clinic also get to use Clearfil SE Bond 2 (6th gen, Kuraray) OptiBond XTR (6th gen, Kerr) and Optibond FL (4th gen, Kerr)

Selective Enamel Etching:

- Apply 35% phosphoric acid etch gel to the tooth enamel and allow to react for 15 sec.
- Rinse thoroughly with water and dry with water-free and oil-free air

Total Etching:

- Apply 35% phosphoric acid etch gel to the tooth enamel and dentin and allow to demineralize for 15 sec.

- Rinse thoroughly with water and dry with water-free and oil-free air or with cotton pellets; do not over dry

Apply the bonding agent on the tooth surface

- Use the disposable applicator to apply the adhesive to the tooth structure and rub it in for 20 seconds.
- Subsequently direct a gentle stream over the liquid for about 5 sec until it no longer moves and the solvents has evaporated completely.
- Harden the adhesives with LED light for 10 sec.

The above information provided by Dr. Glen Johnson, Professor Emeritus

OHSU: Yes, they are posted in each operatory for reference in addition to having received initial instructions. We have a materials use manual at every Care Coordinator station that is periodically updated when new materials are introduced.

WUHS: The faculty and students are only provided with Optibond FL and follow WesternU's bonding protocol.

UNLV: Scotchbond Universal is encouraged. We recommend to follow the manufacturer instructions. If there is enamel present it should be etched.

ROSE: Manufacture guidelines

UU: no response

UOP: YES

- If just enamel, etch with phosphoric acid, apply Prelude adhesive, light cure and proceed - - -

- Can also use Scotchbond on the etched enamel- light cure and proceed - - -

- If enamel & Dentin do *selective etch*.

Phosphoric acid on the enamel, Dentin primer on enamel and dentine, apply dentin adhesive, light cure and proceed -

UCSF: no response

UCLA: We use OptiBond FL for all of our composites. We also provide Cavity Cleanser (Bisco) to inhibit MMP activity.

USC: no response

LLU: Through published “Loma Linda Way”: Scotchbond Universal is the default bonding system. Clearfil SE may be used for an esthetic anterior restoration.

c. Light Curing

i. When is light curing taught in the curriculum and how much time is devoted to the topic?

UA: Early and reinforced in several lectures approximately 2 hours of lectures.

UBC: Year 1 and Year 2 (Restorative Dentistry and Dental Biomaterials courses) blended in resin composites teaching, using approximately 30 minutes in total addressing the importance of a proper light curing protocol. Light Curing Guidelines for Practitioners (CDA Essentials 2014, 1:6 p21) is a required reading in those courses as well.

ASDOH: During the operative course. Not sure how many hours, it is covered in several lectures

MWU: 4 hours of lecture split between D1 and D2 year, two hour rotation w/Marc unit/bonding.

- UW:** 2nd year predoctoral operative dentistry course, approximately 3 hour lecture.
- OHSU:** Taught in Dental Materials and in Operative Dentistry as part of the general instruction and use of composites. It is of the general instruction and use of composites. It is also taught (about 20-25 minutes in a dental materials course to the DS3 students).
- WUHS:** First semester of the D1 year. 1-2 hours spent on light curing theory, not including use of curing light.
- UNLV:** Light curing is taught in every operative course. On average about 2 hours is spent on light curing for each course.
- ROSE:** 1st year, dental anatomy class, starts 3rd week. No wax
- UU:** Operative II, Dental Materials, Clinical Challenges about four hours of total lecture time
- UOP:** During Pre-clinical a one hour lecture
- UCSF:** Minimal, 30 minutes in one lecture
- UCLA:** -Summer of D2 (where they first learn about composite restoration)

-The topic is introduced incrementally with initial review of the protocol, then variables that impact irradiance, follow by a MARC exercise in class. Totaling approximately 3 hrs in lecture.

-Making Accurate Resin Curing exercise: a light sensor mounted on a typodont, where students can visualize the change in irradiance when they move the curing light away or closer to the tooth/sensor, or if they shake their hand or look away.
- USC:** First year (trimester I and II)
- LLU:** Third quarter of the first year when D1 students learn about composite restorations. Probably no more than

one composite restorations. Probably no more than one lecture.

ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit?

- UA:** Adec built in curing wands on all units.
- UBC:** Provided for the students
- ASDOH:** It is provided to them
- MWU:** Provided
- UW:** The curing lights provided for the students in the pre-clinical simulation laboratory
- OHSU:** The lights are provided in both pre-clinical laboratory and clinic—the school owns and maintains them.
- WUHS:** The Curing lights are provided by the College.
- UNLV:** They are provided but some choose to buy their own.
- ROSE:** yes
- UU:** They are provided (the lights are assigned to lab work stations)
- UOP:** A required purchase part of their kit.
- UCSF:** Provided
- UCLA:** Purchased as part of their kit.
- USC:** Required to purchase and is in their issue.
- LLU:** They are provided in the lab but we are working on Issuing them to the students.

iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own?

- UA:** Adec built in curing wands on all units
- UBC:** Provided for the students
- ASDOH:** It is provided to them
- MWU:** Provided
- UW:** The curing lights provided for the students in the pre-doctoral

clinics

- OHSU:** The school owns and maintains the lights in the clinic
WUHS: The curing Lights are provided by the College.
UNLV: They are provided, but some students have their own as well.
- ROSE:** yes
UU: They are provided (the lights are assigned to clinic operatory or checked out to the students)
- UOP:** Curing lights are provided in the pre-doctorial clinics.
UCSF: Provided
UCLA: use their own
USC: It is in their freshman year issue from day one.
LLU: They are included in the composite packets they check out in the clinic.

iv. What specific curing light(s) do you have available?

1. Please list name(s) and manufacture (s)

- UA:** Acteon Curing Light
UBC: Built-in Monowave LED Satelec Miniled Supercharged (ACTEOM) and portable Polywave LED Bluephase Style (Ivoclar Vivadent)
ASDOH: In the pre-clinic Coitlux LED Curing light by Coltene/Waledent. Also in the clinic they use Dentsply curing light
MWU: Valo and Valo Grand-Ultradent
UW: Acteon Satelec Mini LED Curing Light, A-dec
Paradigm DeepCure LED Curing Light, 3M ESPE
Demi Plus LED Curing Light, Kerr
OHSU: MiniLED by Acteon (France)
WUHS: VALO
UNLV: Demi Plus by Kerr
ROSE: Valo Ultradent
UU: Valo from Ultradent are the main lights that we use, we Also have the Ascent OL5 from CAO group.

- UOP:** VALO - Ultradent
- UCSF:** Acteon (as part of new dental units)
- UCLA:** Coltolux (Coltene/Whaledent) and 3M Paradigm
- USC:** Valo by Ultradent
- LLU:** Ultradent's Valo, Ivoclar's Bluephase, and 3M's Eliper

v. What protocols are in place to ensure the proper use of your light curing system(s)?

- UA:** Students given through instruction before use in lectures. Lab instructors are required to observe student use and correct any errors in use.
- UBC:** Teaching on composite placement and curing (time, angle, shadows, additional curing after matrix/wedge removal, small cervical increment to assure adequate curing at the critical gingival margin.
- ASDOH:** We instruct the students in regards the amount of the time that they use to cure their restoration depending on the procedures we calibrate these lights following the manufacture instruction.
- MWU:** The quantitative and qualitative output of ALL curing lights used in the clinic is measured monthly and recorded in an excel spreadsheet. Students are following the protocol as established by evidence based dentistry in the preclinical curriculum
- UW:** The students who failed the didactic course require study the supplementary course materials. Additional didactic exams will be provided to assess the improvement of the students' didactic knowledge.
- OHSU:** Students receive instructions in pre-clinic—our equipment is the same in preclinic as in clinic.

WUHS: We follow the manufacturer's directions and ask the students to leave the settings alone.

UNLV: Students are monitored by covering faculty.

ROSE: Faculty supervision

UU: None other than teaching them the principles and monitor them in the sim lab and the clinic.

UOP: Protective shields are issued when lights are dispensed. Use of the curing light unit and to use the settings

UCSF: Students are required to watch a video on the operation of our dental units, which include the light curing unit

UCLA: None specifically

USC: Proper use is taught in first two trimesters of dental school.

Curing lights are tested and certified

LLU: Students are required to use light protector shield and PPEs.

vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)?

UA: University tech does quarterly checks with Adec representative. In the clinic all results are logged for each unit. In the lab, we have intentionally reduced the illumination to minimize the risk of eye damage to beginners.

UBC: Regular checks with radiometers performed by the clinic technicians.

ASDOH: We instruct the students on how to handle the light, charge them and clean them

MWU: Monthly testing

UW: We use the checkMARC from BlueLight Analytics to check the light curing units

- OHSU:** They are no specific protocols for calibration of lights. Lights were tested initially when we moved in 4 years ago.
Students report or turn in lights that are not functioning and those lights are serviced in house if possible or returned to the manufacturer. Now that the issue is questioned, we will be buying a meter to test our lights
- WUHS:** None are in place. We do have an equipment manager who is in charge of repairs and maintenance on all equipment.
- UNLV:** All light curing systems are tested on a regular basis by staff to ensure proper function and maintenance. Students are encouraged to test their curing lights before each use.
- ROSE:** Faculty guidance
- UU:** None really, but this question has prompted us to begin the discussion.
- UOP:** Lights are sent out for needed maintenance/repairs.
- UCSF:** Maintenance staff monitor the light curing units with light cure meters
- UCLA:** None specifically
- USC:** Curing lights are tested and certified annually
- LLU:** All curing lights are periodically evaluated and maintained for proper function by the clinic supply department.

IV. Student Assessment

a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission?

vii. If Yes, describe what is required of the applicant.

- UA:** No
UBC: No
ASDOH: No
MWU: No

- UW:** No
- OHSU:** No
- WUHS:** No
- UNLV:** No
- ROSE:** No
- UU:** No
- UOP:** No
- UCSF:** No
- UCLA:** No (except for International Students)
- USC:** Yes, but for international program applicants only.
Two tooth preparations and wax carvings
- LLU:** No

b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)

- UA:** All students are allowed one rewrite if they fail a didactic exam. If they fail a lab simulation exam we have them do remedial exercise then redo the exam one more time. If they are unsuccessful in the second effort by committee, we decide on an individual plan on a case by case basis. If the student looks like they are unable to meet the minimum standard a recommendation is forwarded to the academic standing committee. This committee has the authority to have the student repeat the course, repeat the year or be required to withdraw.
- UBC:** They repeat the test. In simulation they usually repeat until they pass but this is at the discretion of the course coordinator. Remediation may be required depending on the situation but is kept to a minimum.
- ASDOH:** Remediate the course.
- MWU:** Didactic and simulation clinic-cumulative examination.
- UW:** Yes
- OHSU:** A student who fails any course may remediate under the provisions listed by Course Director's syllabus. When failures of remediation occur, the student is referred to the Student Progress Committee to determine if there are special circumstances to allow repeat of the course or repeat of the year.
- WUHS:** Additional projects, additional exams, one-on-one faculty/student sessions.
- UNLV:** No response

- ROSE:** Remediation occur after each block, summer, winter, no clinic privileges until passed
- UU:** Remediation of an assignment or an examination occur with individual attention, discussion, additional assignments or practice and then retesting. For Competency Examinations, remediation is again individualized based on the critical errors achieved, discussion, instruction and additional practice is required, before reassessing competency. For failure of the course, it depends on the circumstances and the course. Faculty members specify in syllabi what course policies are.
- UOP:** Yes
- UCSF:** If a test case is failed the student is offered a remediation exam.
Clinically, if a skills assessment or competency exam is failed, the student is given feedback, reviews the procedure and may retake the exam. If a student fails an exam three times, they are required to do 50 hours of remediation per the course director before being allowed to retake the exam again.
- UCLA:** Yes
- USC:** Required to participate in the remediation process
- LLU:** If a student receives an unsatisfactory or failing grade in a required course, it will be necessary for him/her to do additional work. Based on the original grade earned by the student, and upon the recommendation of the Academic Review Committee, one of the following plans will be pursued:
1. For courses with unsatisfactory performance (D+/D/U grades), the student must reregister for the course, review the course work independently, repeat required assignments or quizzes, and take any or all course examinations as required by the course director. The

highest grade allowed for a remediated course is C. At the discretion of the Academic Review Committee and course director, the student may be required to repeat the course at the next course offering.

2. For courses with failing performance (F grades), the student must reregister for the course, attend the class and/or laboratory, and take all course examinations at the next regular course offering.
3. Both the original and repeat grades are entered into the student's permanent academic record, but only the repeat grade units are computed in the grade point average.
4. Under certain circumstances and upon recommendation of the Academic Review Committee, a student may remediate/repeat a maximum of 12 units during the current and subsequent academic year. Upon such recommendation, the student will be permitted to move forward as a member of the cohort with which he or she enrolled.

i. Are all students who fail eligible for remediation?

UA: Yes

UBC: We remediate throughout the year as they are working through the course. If by the end of the year they still are failing then very rarely is remediation offered, they are usually required to repeat the year

ASDOH: No after they fail 3 courses they will be referred to the Student success committee to review their academic status.

MWU: Yes, unless they fail two courses in the same quarter.

UW: Yes

OHSU: A student who simply does not take the test and does not have an excused absence may not necessarily be eligible for remediation.

WUHS: Additional projects, additional exams, one-on-one faculty/student sessions.

UNLV: No response

ROSE: Yes

UU: It depends on the circumstances and the course. Faculty members specify in syllabi what course policies are.

- UOP:** Yes
- UCSF:** Yes, unless the failure involved academic dishonesty/cheating then they may be dismissed
- UCLA:** Yes
- USC:** Yes
- LLU:** Students who failed on multiple courses at one time may be dismissed.

ii. Do all students eventually pass remediation?

- UA:** No, required to repeat the course, repeat the year, take a year off or withdraw.

- UBC:** Most students eventually pass.
They fail the course and this is taken to the promotions committee to determine the ultimate fate.

- ASDOH:** Depend on the year, we have 98-100% passing rate
If not, they have to retake the course at their own expenses.

- MWU:** No, approximately 90%.
They are given the option of returning the following year and repeating that course.

- UW:** Not all the students pass remediation
The course director could decide to extend the remediation based on the improvement of the students. If the course director considers the students fail the remediation, the fail grade would submit to the Academic office or Student Progress Committee.

- OHSU:** Many students do
If a student does not have the skills to pass remediation, either the student is dismissed OR if the student either the student is dismissed OR if the student shows some potential for success, he/she may be given the opportunity to repeat the year.

- WUHS:** For the most part.
Students who do not pass remediation are sent to the

“Student Performance Committee” to decide on the next course of action.

- UNLV:** No response
- ROSE:** Usually because we provide so many remediation

opportunities. However, 1 did not last year, and was dismissed from school. If they do not pass 6 or more courses they are dismissed, or if they do successfully pass summer and winter remediation.

UU: So far...

UOP: Yes

UCSF: Not necessarily

No, if they are not able to pass remediation, they may be asked to repeat the year or be dismissed

UCLA: Generally yes, but we have up to 3 rounds of remediation for operative practical.

USC: No, they are reported to the student performance evaluation committee. The committee makes the recommendation they believe to be appropriate for each case.

LLU: If remediation is offered, all students eventually pass the remediation process.

iii. How do you remediate students who fail the didactic program?

UA: On an individual basis, students are provided with counselling and an action plan that is focused on their areas of weakness to prepare them for a rewrite is formulated.

UBC: We meet with them, review their exam and discuss where their weaknesses lie.

ASDOH: The lead instructor will create written exam (S) which could be in any format not necessarily multiple choice. Also the exams could be combined with assignments or an oral exam.

MWU: Meet with faculty and must pass a cumulative test.

UW: The students who failed the didactic course require study the supplementary course materials. Additional didactic exams will be provided to assess the improvement of the students' didactic knowledge.

OHSU: They take an exam or exams to the satisfaction of the course director or repeat the course. If there is an available term to remediate, the student may remain

with his/her class. If not, then the option to repeat a year may be given.

WUHS: The students create a self-created study guide. They are then retested on the material either through another retested on written exam or oral exam to faculty.

UNLV: No response

ROSE: Time is built into the curriculum program (Roseman model)

UU: We haven't faced this yet.

UOP: They take a make-up final with questions that are different from the original exam.

UCSF: They are allowed one retake, and if they fail they are dismissed from school??

UCLA: -Students who fail the didactic portion of the course are generally required to remediate the final written exam (MCQ/short essays).

USC: Students are provided sufficient time to study and also are offered help if they feel the need prior to taking the didactic remediation exams.

LLU: The course director designs remediation specific to each student. The remediation course may include meetings with the course director, review of the material, homework, and quizzes. Then the student must pass on the final exam.

iv. How do you remediate students who fail the laboratory simulation program?

UA: On an individual basis they are given counselling and an action plan that is focused on their areas of weakness. We have evening sessions that are available with some faculty supervision for additional practice to prepare them to redo the preclinical exam.

UBC: Continued instruction throughout the year by their clinical instructor.

ASDOH: We create an IEP for the student to work on and they take lab exams as it was offered in the original course

- MWU:** Two week one on one remediation and retake all practical projects.
- UW:** The course director would meet with student individually to discuss the cause of their inferior performance. Additional time will be provided to exercise the laboratory projects. The student will need to re-take the laboratory exam of the projects.
- OHSU:** Similarly, a course director may prescribe the remediation and if that is not successful, the student may be dismissed or find him/her self a member of the next class.
- WUHS:** Additional projects, additional exams, one-on-one faculty/student sessions.

UNLV: Course Remediation/Competency Re-evaluation: Three methods of course remediation/competency re-evaluation may be applied in didactic and clinical courses. These include:

a. In-course Remediation: In-course remediation is not automatically afforded but rather it may be permitted at the discretion of the course director. In-course remediation applies in any course in which two or more evaluation exercises or examinations are provided for in the course syllabus. The following are the policies outlined for in-course remediation:

i. Student Receiving F Grade: A student receiving a grade of F on any examination or evaluation exercise, excluding the final, may be permitted to remediate that evaluation exercise or examination prior to taking the next scheduled examination at the course director's discretion. If a course director elects to change a grade as part of the successful completion of the in-course remediation process, that grade cannot be higher than a C grade.

ii. In-Course Remediation: If the course director permits in-course remediation, it is the responsibility of the course director to contact the student to schedule the remediation activity. There shall be no limit to the number of courses in which a student may complete in-course remediation.

b. Post-course Remediation

i. Pre-Doctoral Students: Post-course remediation may only be permitted with approval from the SPC and Assistant Dean for Academic Affairs (or designee). If post- course remediation is approved by the SPC and Assistant Dean for Academic Affairs (or designee) , the following are the policies outlined for post- course remediation:

(a) When Student Receives F Grade: When a student receives a final grade of F in any course, post-course remediation may be permitted in accordance with (b) and (c) below.

(b) **Limit on Post-course Remediation:** Post-course remediation shall be limited to two (2) courses per academic year and a total of three (3) courses during a student's dental school career. More than two (2) course failures per academic year will result in Academic Expulsion (dismissal). More than three (3) course failures during a student's school career will result in Academic Expulsion (dismissal). The post-course remediation limits apply to all required SDM courses; elective courses are exempt from these limitations.

(c) **Timing of Post-Course Remediation:** Post-course remediation should not begin until the course director receives notification from the SPC and Assistant Dean for Academic Affairs (or designee). The course director will schedule the post-course remediation activity that should correspond with any guidelines recommended by the SPC and Assistant Dean for Academic Affairs (or designee).

(d) **Successful Post-Course Remediation:** Successful post-course remediation, as defined by the course director, will result in a maximum grade of C. A change of grade form will be sent to the Department Chair. The form will list the change of grade to a "C Remediated" and will be noted on the transcript as such.

(e) **Failure of Post-Course Remediation:** If a student fails to successfully post-course remediate a given course, the original F grade will stand as the final grade for the course. The student may be suspended or required to repeat the entire academic year, if the student is permitted to continue in the program.

ROSE: Same as didactic

UU: 1:1 instruction or independent skills development and repeating of the assessment.

UOP: They take a remedial course with three practical.

UCSF: They are given the exam on other days

UCLA: -For the lab simulation program/practical portion of the exam, students who fail the test will be given makeup assignments (3-5 preps/restorations) to practice while certain students will receive tutoring from faculty or student peers. Then they will sit for a makeup exam, in which if they still do not pass, they will receive more assignments. This allows us to narrow down to the few students who need the most assistance and dedicate our teaching resources.

USC: Two weeks of one-on-one faculty interaction and Immediate feedback. Additional help is available to them during that time period if they request it.

LLU: The course director usually offers remediation exam.

c. How do clinical procedures get evaluated? (pass/fail, grading scale, etc.)

i. Do you use a clinical evaluation (grading) system that is integrated with axiUm?

1. If Yes, please describe.

UA: Grade of Q, R, S or T (exceptional, superior, acceptable and unacceptable) in four areas:

1. Preparedness
2. Knowledge
3. Delivery of treatment
4. Professionalism

UBC: Grading

ASDOH: Pass/fail We will use on AxiUm Ascend in the near future

MWU: Grading is part of the axium system set up. Grading scale is 1– 5. Students are asked to self assess first and subsequently the grade is used as a formative assessment tool

UW: Yes, Honor, Pass, Fail

OHSU: Clinical procedures are graded as “Appropriate or Needs Improvement” If there is a critical error, the “Needs Improvement” designation is still used, but the student will be discussed with the Group Leader and the procedure may not count for experience. The students are vetted for ability to challenge a clinical skills assessment (competency) based on the breadth of providing appropriate treatment consistently. This same vetting occurs before we send a student on external rotation. Our clinical evaluation is integrated in Axium. We run reports to view the trends/consistency in patient

management, faculty interaction and procedure quality.

- WUHS:** Grading scale based off a clinical rubric.
- UNLV:** Comments are placed on a grade card in Axiom and can be considered in the determination of a grade at the midterm or final but individual clinical procedures are not graded.
- ROSE:** Pass/No pass. E (Excellent), or CA (Clinically Acceptable) is pass. NI (Needs Improvement), or CE (Critical Error) is no pass
- UU:** Clinical procedures are evaluated using a 5 point grading scale. The scale is the same for formative and summative assessment. There is a general rubric, as well as specific rubrics for each section (some sections still in development).
- UOP:** Use grade sheets
- UCSF:** Pass/Fail Feedback only given on AxiUm, -grading done on paper but we are in the process of migrating information onto AxiUm.
- UCLA:** (pass/fail, grading scale, etc.)-1-3 scale, with 2 or 3 considered passing. Pass/No Pass.
It's tied to a mannequin so that there is not direct tie to the patient's chart.
- USC:** Grading scale. For daily work assessment we use axiUm, but not for examination evaluations
- LLU:** Students are required to be evaluated for each clinic session for their performances. There are 5 categories of the clinic evaluations with scales from 5 to 1. The evaluation categories are: **Preparation and knowledge** (5- exceptionally prepared, 4- well prepared with no help, 3-

minimally prepared, 2-moderately unprepared, 1-grossly unprepared), **Clinical skills** (5- exceptional level with no help, 4-acceptable level with no help, 3-provided minimal help, 2-provided significant help, 1- performed task completely by instructor), and **Time management** (5- excellent time management and productivity, 4-good time management and productivity, 3-minimally acceptable time management, 2-poor time management, 1- grossly unacceptable time management)

2. If No, what system do you use to collect the data

UA: In the process of changing over to grading on ipads and keeping this data on some other platform. Advantage of this method is that many grades will be assigned in real time for each clinic. For example each operative step can graded: rubber dam, preparation, etc...

UBC: Excel spread sheets

ASDOH: No response

MWU: No response

UW: No response

OHSU: No response

WUHS: Examsoft

UNLV: None

ROSE: Power BI

UU: We worked with out local developers to build a custom assessment program (MAPS) that would interface with Epic-Wisdom.

UOP: Use grade sheets

UCSF: No response

UCLA: No response

USC: No response

LLU: No response

d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?

- UA:** No
- UBC:** By the end of the course.
- ASDOH:** No response
- MWU:** No, not by single procedure.
- UW:** YES
- OHSU:** Juliana has these answers
- WUHS:** It depends on the module. Usually the projects is assigned and the students have a week to three weeks to complete the assignment.
- UNLV:** No. Usually only performance examinations are given a finite length of time.
- ROSE:** Yes
- UU:** No, but the student is responsible for treating the patient appropriately. The students are assessed on their critical thinking and decision making, ethics and professionalism, communication and preparation and time management, and if they fail to perform to theses standards, their assessment will be affect.
- UOP:** YES
- UCSF:** No, other than CE/SA-time limit on SA/CE is 2 hours for operative, 3 hours for fixed preparation and temporary
- UCLA:** No response
- USC:** No response
- LLU:** Other than performance examinations there are no time restrictions on laboratory projects.

i. If Yes, how long is the specified time for the following:

1. Class II amalgam
2. Class II composite
3. Full crown preparation

UA: No

UBC: By the end of the course.

ASDOH: 1. Class II amalgam Ideally 3-4 hours

2. Class II composite Ideally 3-4 hours

3. Full crown preparation Ideally 3-4 hours

MWU: No, not by single procedure.

UW: 1. Class II amalgam 45 min

2. Class II composite 60 min

3. Full crown preparation 75 min



OHSU: We give a finite length of time for completion of amalgam and composite restorations in the treatment planning courses described in above. Typically they are given 2 hours and 30 minutes, but it includes time for self-evaluation and completion of AxiUm entry just like a real clinic. We ask 3 same crown preparations in 90 minutes in 2nd year CAD/CAM course.

WUHS: 1. Class II amalgam (3 weeks)

2. Class II composite (5 weeks)

3. Full crown preparation (8-10 weeks integrated over 1.5

years)

- UNLV:** No. Usually only performance examinations are given a finite length of time.
- ROSE:**
1. Class II amalgam NA
 2. Class II composite 1.5 hour Bella Perlita appointment time
 3. Full crown preparation 1.5 hour Bella Perlita appointment time with temp and digital impression
- UU:** No, but the student is responsible for treating the patient appropriately. The students are assessed on their critical thinking and decision making, ethics and professionalism, communication and preparation and time management, and if they fail to perform to these standards, their assessment will be affected.
- UOP:** Class II amalgam  two hours
Class II composite  two hours
Full crown preparation N/A
- UCSF:** No, other than CE/SA-time limit on SA/CE is 2 hours for operative, 3 hours for fixed preparation and temporary.
- UCLA:** Class II amalgam-3 hrs (D1s)
Class II composite-3hrs (early D2s) ->2.5hrs (late D2s)

Full crown preparation-3hrs (including provisionalization)

USC: Class II amalgam 3:15 for RD/Preparation/Restoration/Self assessment (for exams only)

Class II composite 3:45 for RD/Preparation/Restoration/Self assessment. (for exams only) Preparation and restoration is not at the same scheduled time.

LLU: Full crown preparation 3:30 for Preparation/Restoration/Impression/Self assessment (for exams only). Sometimes for daily work in the sim lab as well. Other than performance examinations there are no time restrictions on laboratory projects.

i. If Yes, is there an assessment at the end of the specified time?

1. If Yes, is this assessment a factor in the project or course grade?

UA: No

UBC: By the end of the course

ASDOH: There is an assessment we call it progress exam after each scenario which include 5-6 projects

MWU: No response

UW: Yes

The course grade rubric is as follows

Pre-Clinical Skills: Mid-term (approx. 20%) & Final (approx. 20%) 40%

Cognitive Mid-term (15%) & Final (20%) 35%

Weekly Skill Assessments (incorporating the Professionalism Assessments) 20%

Weekly Quizzes 5%

OHSU: Yes, we use self-evaluation forms for each project.

It indirectly affects a course grade. There is a subjective grade given to each student at the end of the term. These grades are called PSJ's (Professionalism, Skills, and Judgment). If the student constantly has a problem with time management, it will be recorded in PSJ. The PSJ score will be used for their final grades (5-10%).

WUHS: At the very end of the module, once all projects have been completed.

UNLV: No response

ROSE: Yes: Self and Faculty assessment

UU: Yes, they are assessed on their critical thinking and decision making, ethics and professionalism, communication and health promotion, preparation and time management as well as their ability to self-assess. Each of these aspects will be affected by their assessment, which is a factor of their project grade, their course grade, and their clinic grade.

UOP: Yes

UCSF: No response

UCLA: Yes, this assessment is generally considered their final practical project grade. Students are required to complete weekly in-class projects (not graded, but need to be clinically acceptable to be checked off), and pass the final practical to pass the course

USC: In some modules it is but not in all modules

LLU: No response

iii. If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?

UA: No response

UBC: No response

- ASDOH:** It depends on the project
- MWU:** No response
- UW:** The time requirement begins at the beginning of the course but would allow more time at their first preparations. The finite length of time would be given at the competence examination, usually at the end of the quarter.
- OHSU:** This time requirement will be conducted from fall to spring of 2nd year. Then, they will be ready for their first restorative procedures at the end of 2nd year or early 3rd year.
- WUHS:** No response
- UNLV:** No response
- ROSE:** From first procedure and throughout course
- UU:** No response
- UOP:** They get two weeks beginning the day it is assigned
- UCSF:** No response
- UCLA:** The time requirement is in place when the student does their first prep/restoration. The time limit decreases as they get closer to prep/restoration. The time limit decreases as they get closer to entering clinic.
- USC:** No response
- LLU:** No response

e. How many times do you assess your students for a particular operative procedure

(i.e., CI II composite) after they have taken the course teaching that procedure?

- UA:** All lab and clinical procedures are assessed.
- UBC:** Once
- ASDOH:** 3 progress exams and one pre-clinical competency in the pre-Clinic 2 class II composite competency in the clinic
- MWU:** Multiple
- UW:** Each step of the operative procedure is assessed at the weekly practice project.
- OHSU:** No response
- WUHS:** At least 2 additional times
- UNLV:** No response
- ROSE:** 1 assessment per block + remediations and re-assessments as necessary
- UU:** Clinically, they are assessed with every procedure. If a student would like to return to the simulation clinic to practice, they are encouraged to do so.
- UOP:** There are eight pre-clinical practicals
- UCSF:** Twice for each procedure, midterm and final
- UCLA:** No response
- USC:** No response
- LLU:** Formative assessment and summative assessment:
D2 year: **Class III SCA, Class II SCA, Class II Speed FCA x2, Class II Speed SCA**
D3 year: **ACC FCA x2, ACC SCA, FPD FCA x2, FPD SCA**

So that's 5 summatives and up to 6 formatives (this year we missed one of the formatives for the all ceramic crown).

Plus one direct restoration and indirect restoration competency exam on live patients before graduation.

i. How is it assessed (manikin vs. live patient)

- UA:** Live patient and all lab projects.
- UBC:** Manikin
- ASDOH:** Manikin in the pre-clinic, live patient in the clinic.
- MWU:** Manikin
- UW:** Manikin, grading continues in the clinics for various procedures
- OHSU:** We do not evaluate students' skills using manikins after finishing all preclinical courses. In addition to daily assessment of students' restorative procedures at clinic, we carefully evaluate their performances when they challenge CSA (clinical skill assessment).
- WUHS:** 1 on manikin, 1 on live patients after the student has shown some proficiency in the procedure.
- UNLV:** Live patient
- ROSE:** Both
- UU:** Both, live patient being much more common.
- UOP:** Manikin
- UCSF:** Manikin in preclinical, live patient in clinical
- UCLA:**
1. For Clinic, we have a Class II, Class III and Class V competency, before which the respective Case Assessment must be completed.
 2. In preclinic (D1-D2), in sequence of their assessment:
 - Class I Ag: 2 times (self assessment/faculty eval in a mock practical > final practical)
 - Class II Ag: 2 times
 - Class III Composite: 2 times

-Class II Composite: 6 times
-FGC: 1 time; PFM: 1 time; Anterior ACC: 1 time; Posterior ACC: 1 time; Onlay: 1 time.

USC: Both overall. Live patient only when in clinic.

LLU: Both manikin and live patient

ii. When do these assessments occur?

UA: Daily

UBC: During the course

ASDOH: Progress exams in the pre-clinic. Pre-clinical competency spring semester of D2 year. Competency in the clinic

MWU: Every other week on average.

UW: Every week's laboratory exercise session and the competency exam.

OHSU: The CSAs of Class II restorations are recommended to be completed by the beginning of 4th year.

WUHS: Manikin: 2nd year Spring Semester; Live patient: 3rd and 4th years.

UNLV: There is a second year restorative competency that can be a CI I, CI II, CI III, CI IV or crown build-up. There is a third year CI II (Amalgam or Composite) and Class III competency. There is the Mock board restoration that can be CI II or III at the start of the fourth year. There is a restorative competency in the final semester that can be CI II, CI III, CI IV or a crown buildup. There is a crown competency in the third or fourth year that can be PFM, gold, or ceramic

ROSE: Throughout all 4 years of curriculum

UU: Every patient, every procedure

UOP: Two in the First Qtr.

Two in the Second Qtr.

Four in the Third Qtr.

UCSF: Midterm and final in preclinical, student chooses when to take SA/CE in 3rd and 4th year

UCLA: During their third and fourth year.

USC: Every restorative procedure

LLU: Direct restoration summative (class II and III) on manikin must be completed before students are allowed in the clinic to treat live patients. Indirect restoration summative on manikin must be completed during third year before they are allowed to perform indirect restorations on live patients. Both direct and indirect restoration summative on live patients must be completed before graduation.

f. Does your school provide mock boards for your students?

UA: Yes

UBC: N/A

ASDOH: Yes

UW: Yes

OHSU: Yes, in Operative, Endo and Removable Pros

WUHS: Yes

UNLV: Yes

ROSE: Yes

UU: Yes

UOP: Yes

UCSF: Yes

UCLA: Yes

USC: Yes

LLU: Yes

i. If Yes, how are patients obtain

UA: We use no patients for our board exams.

UBC: N/A

ASDOH: Yes, Patient of record

MWU: Patient are selected from the list of patients assigned to the student.

UW: Mock boards are on Manikin

OHSU: Both Endo and Removable Pros are not on live patients, rather, they are on blocks or simulated. Operative Mock Boards are carried out on patients of record

WUHS: The patients are usually patient of record.

UNLV: From the student's patient pool.

ROSE: Patients of record

UU: Typically from our patient pool

UOP: YES From existing clinic patients, or friends, or relatives of students and patients.

UCSF: Regular assigned patients can be used, and we also do advertised screenings

UCLA: Normal patient load.

USC: Students perform the procedures on the patients who have the procedures treatment planned at our school.

LLU: From each student's patient family

ii. If Yes, provide details on how mock boards are conducted.

UA: Canadian board exams are two parts.
A. written multi choice: students are offered sessions where old

exam questions are reviewed/discussed

- B. OSCE bell ringer stations where there are models, radiographs, photos, etc. set up. There are questions at these stations that pertain to this material. To prepare students, we provide have practice sessions with feedback.

UBC: N/A

ASDOH: It is conducted like the state board exam

MWU: All Mock Boards are an exact duplicate of the actual exams

UW: A series of didactic lectures (one week) on each subject of the board exam are given in Winter quarter. After the didactic session, the exercise of board exam is performed on the Manikin. Three to four independent graders are performed the grading.

OHSU: A full day is dedicated to examining: there is a morning session for one half of the class and an afternoon session for the other half. When not performing Operative procedures, the student is taking the Endo Mock Board. A session is 2.5 hours long and is carried out similarly as the WREB; we use the WREB guidelines for acceptance, check in, preparation and final restoration. We grade similarly as WREB.

WUHS: Mock boards are designed to mimic the actual boards. The students are expected to fill out the required paper work. Patients are sent to a specified area for acceptance. Once approved, the patient is sent back to the student for treatment. Once the preparation is completed, the patient sends the patient to the examination area to be graded. If there is an error, the graders notify the student via paperwork similar to the real boards. If the preparation is acceptable, the patient is sent back to the student for the restoration. Once the restoration is completed, the student sends the patient back to the grading area for grading.

UNLV: Endo and Prosthodontic sections are manikin mock boards and are completed in one afternoon each. They are graded by calibrated board examiners. If they fail they remediate on their own time until they pass. Operative and Periodontics are patient mock boards completed during two 2 ½ hour clinic sessions in one day. They are graded by calibrated faculty graders. Those who fail are required to remediate until they pass on their own patients in the clinic and are graded by one of the calibrated faculty graders.

ROSE: Organized and administered by current board examiners, and created to simulate as nearly as possible the exact experience

UU: The mock board is given at different times, by the different sections. The fixed prosthetic typodont exercise is given as part of the OSCE exam mentioned above. The typodont exercise is the assessment of a student's preparation of an anterior All Porcelain Crown as well as preparations of abutments for a posterior fixed partial denture. The endodontic department gives their mock board on an afternoon using 3D printed teeth placed into a typodont. Evaluated are access preparations, canal instrumentation and obturation. There is a clinic day set apart for the students to perform one operative procedure (a class II preparation and restoration), and a scaling and root planning procedure. The students are given ID numbers, there are floor examiners, a separate grading area, and inherent time limits and penalties.

UOP: Same protocol as the actual boards: start checks, Extensions that are beyond ideal, prep check, (caries removal), restoration check. Graders evaluate preps and restorations. Clinical Floor Examiners handle other checks

UCSF: Simulation like the actual WREB exam. All D4 students are required to take the mock WREB's, if they don't have a live patient they are required to do a makeup on a manikin.

UCLA: Spread out over 2 days in Winter Quarter. Students complete 1 or 2 procedures (any direct that they have available, not specified to be a Class II). They are graded via simulation like the actual WREB exam. Guest graders are also present.

USC: Two day process involving, one operative procedure, one endodontic procedure, and one perio procedure.

LLU: It runs exactly like the real WREB Exam with the same setting and process.

iii. If Yes, is passing the mock boards a requirement for taking the actual board exam?

UA: No

UBC: N/A

ASDOH: Yes

MWU: In clinic it is referred to as **COMPETENCY EXAMS**. Students are required to successfully pass the competency boards in order to sit for the actual board exam

UW: No

OHSU: No, one may fail the mock boards and still take a board exam. We debrief our students as to why the failure was determined (we have photographs of the work done during the Mock Boards) and discuss/prescribe ways to avoid future failures.

WUHS: For the most part, no. However if there is a critical error, the students are assigned a project to overcome that error.

UNLV: Yes

ROSE: No. However, it is part of the curriculum, and required for graduation

UU: No, but it is a clinical competency exam

UOP: Yes

UCSF: No, but it is required for our PCC 149 course.

UCLA: Taking the exam is a requirement, not passing.

USC: No

LLU: No

iv. If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards?

UA: No response

UBC: N/A

ASDOH: No

MWU: The competency boards contain ALL aspects of the ADEX and the WREB exam. Manikin and patient based exams are mandatory

UW: No response

OHSU: Not in the case of operative dentistry procedures

WUHS: No. the Mock Boards are designed to provide experience to the students regarding logistics and required paperwork.

UNLV: Endo and Prosthodontic sections are manikin mock boards. Operative and Periodontics are patient mock boards.

ROSE: No

UU: If a proper patient cannot be obtained, a typodont/manikin exercise will be allowed. The students prefer to do the examination on the live patient.

UOP: Only if a student cannot obtain a patient for the operative portion of the exam.

UCSF: No

UCLA: No

USC: No

LLU: No

v. If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards?

UA: No

UBC: N/A

ASDOH: No response

MWU: No study has been conducted

- UW:** No
- OHSU:** No, however; we have enjoyed several years where the pass rate was 100% and the students have expressed their appreciation of having experienced a trial run.
- WUHS:** We have not done a formal study on the efficacy of the Mock Boards, however, anecdotally, the students all report feeling much more prepared for the examination when they simulate the examination prior to the actual board exam.
- UNLV:** No
- ROSE:** No
- UU:** A survey is given asking of the students of the experience. This survey is given after the licensing board. The students say that it does help them prepare well for the board.
- UOP:** Not known
- UCSF:** No
- UCLA:** None official
- USC:** No
- LLU:** There was a student research project few years ago to find out the correlation between the passing of the mock board and the actual board.

V. Administration

a. Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school.

- UA:** No. Full time staff are allowed one day per week of clinical practice but they make their own arrangements off site.
- UBC:** Yes, for full time faculty with a valid license, 1 day/week is offered.
- ASDOH:** No

MWU: No

UW: We had faculty practice but recently closed due to the financial structure. The F/T faculty are entitled to one day, in- or off-campus private practice.

OHSU: YES—full time faculty may practice in the faculty practice .2 FTE either as the full day or 2 half days

WUHS: No

UNLV: Yes, Faculty are given one practice day a week at the discretion of the Dean. Faculty practice in the faculty practice or in private practice at the discretion of the Dean.

ROSE: Yes: 1 day per week Provide details about the options available for the faculty at your school. If not currently practicing they are expected 5 days a week at school

UU: Yes, but the faculty practice is emerging.

UOP: Yes

UCSF: Yes, there is a faculty practice for F/T faculty. They are required to attain a certain production tied to their salary

UCLA: Yes, about 1 day per week. Other options unsure of, but faculty have been allowed to practice off site.

USC: Yes

LLU: Full time faculty are required to teach minimum 4 days a week and one day of private practice of his/her choice. LLU has a faculty practice where many of the full time faculty members practice dentistry of all disciplines. Also LLU has a Special Care Dentistry Surgery Center where few faculty members practice dentistry under general anesthesia. Some faculty members practice dentistry in a private practice setting.

b. How does your school allow for mandated accommodations for students with a learning disability?

i. For examinations and/or practical?

- UA:** Depends on the situation, there are no structured guidelines
- UBC:** Accommodate with extra time or any recommendation by access and diversity for examinations only.
- ASDOH:** The department of Learning & Disability Resources (LADR) in the university determine this and let us know what accommodation is approved for the student
- MWU:** Extra time/quiet room for examinations only, none for practicals.
- UW:** We work through our Disabilities Resources for Students (DRS) office on the main campus to develop appropriate accommodation plans for each student who identifies with a disability. While DRS has the student's diagnosis, this information is not shared with us in the dental school.
- OHSU:** Students can declare for accommodation, which typically relates to exam/quiz taking, and are then provided a separate area to take their exam outside of the main classroom.
Course directors allow for extra time or alternate location as mandated in the accommodation.
- WUHS:** Disability aides are provided to the students. (closed captioning, interpreters, additional time, etc.) Discussion with other universities are obtain to see what they do for their students with a similar disability. Closed captioning, additional exam time, interpreters for directions.
- UNLV:** Typically students identified through the Disability Resource Center are allowed extra time for examinations/practicals and/or a different testing environment. However, it is catered to each individual as detailed below.
- ROSE:** We follow American with Disabilities Act federal guidelines. However, no exceptions are made for clinical exams where patient

safety is a concern.

Extra time

UU: Both

UOP: Examinations - YES, Practicals – NO

UCSF: Accommodations are made according to whatever special needs that they have (Independent educational plan)

Both

UCLA: Extended time (longer examination periods) and private rooms for examinations.

USC: We follow university policies on this.

LLU: Private proctoring is offered to students with proper documentations for didactic exams. There are no known accommodations for practical exams.

ii. How often have you had to deal with this issue?

UA: Rarely.

UBC: During most didactic exams for the last 15 years

ASDOH: No response

MWU: Every year.

UW: There have been two cases in the past that the disability was something that impacts speed of learning new information.

In both cases, DRS recommended a modified approach to the second year of dental school. One student chose to break the second year into two years, completing dental school in five years.

We do not allow additional time on practical exercises since time is part of what is being assessed and it is important for the student to learn to do procedures in a reasonable amount of time for patient care.

We do allow additional time to complete didactic exams when DRS

makes that recommendation.

In that case, the student provides each instructor with a letter from DRS indicating what accommodations are required (e.g., additional time, separate testing, etc.).

The above information provided by Dr. Susan Coldwell, Associate Dean for Students Service and Admissions.

OHSU: Yearly—it seems that each new class has 1-4 students that require accommodations.

WUHS: We currently have 1 deaf student and a partially color blind student in the 2nd year.

UNLV: Every year.

ROSE: Every written assessment

UU: One per class

UOP: yearly

UCSF: Annually, a couple people

UCLA: rare. Several years ago, we had a student who was wheelchair-bound, and we made

USC: Every trimester

LLU: Every exam.

iii. What were the learning disabilities?

UA: Student requires additional time.

UBC: We are not given that information just the amount of extra time that will be required.

ASDOH: No response

MWU: Anxiety, dyslexia.

- UW:** No response
- OHSU:** That is not disclosed to us, only that the student requires more time, less noise, breaks to get nourishment and we comply.
- WUHS:** Deaf and color blindness.
- UNLV:** The learning disabilities are not disclosed.
- ROSE:** We are not allowed to know (FERPA)
- UU:** We were not allowed to ask
- UOP:** Varied
- UCSF:** Hearing deficiencies, ADD/ADHD given accommodations like taking exams in separate rooms.
- UCLA:** please see above
- USC:** We are not given this information as it is considered confidential.
The university determines both the need for and the type of necessary accommodations. Accommodations are done by the office of disability
- LLU:** No response

iv. Please provide your University/School's policy statement

- UA:** Duty to accommodate: This differs slightly from faculty to faculty but, in general, students who require accommodations due to a disability affecting mobility, vision, hearing, learning, or mental and physical health are advised to speak to their professor who then will direct students to appropriate support.
- UBC:** With respect to didactic, we accommodate any student that is registered with the University's Centre for Accessibility.
There is no accommodation for simulation or patient care.

ASDOH: No response

MWU: Disability services. It is Midwestern University's policy to ensure that no qualified students with disabilities are excluded from participation or subjected to discrimination in any program, activity, or event.

- Midwestern University is committed to providing reasonable accommodations to students with documented learning, medical, or physical disabilities. Policies and procedures provided in the *Student Handbook* and on the Student Services Intranet page ensure that students with learning disabilities will not, on the basis of such disability, be denied full and equal access to academic programs, activities, or events, or otherwise be subject to discrimination under programs offered by the University. Students requesting accommodation must meet with the Associate Dean of Students, who serves as the Disability Services Coordinator, and complete an application for accommodation. Students may apply for special accommodations at any time during their academic curriculum.

UW: No response

OHSU: Accommodations for Disabilities (Revised August 2015)

OHSU is committed to providing equal access to qualified students who experience a disability in compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and the ADA Amendments Act (ADA-AA) of 2008.

As defined by the ADA and ADA-AA, a person with a disability has a physical or mental impairment that substantially limits one or more major life activities of the individual. This may include, but is not limited to, physical, sensory, chronic health, psychological and learning impairments. A qualified student is a person who meets the academic and technical standards requisite to admission or participation in a particular program of study, with or without reasonable accommodations.

The Office for Student Access (OSA) determines and facilitates the implementation of reasonable accommodations to address documented disabilities; this may include academic adjustments, auxiliary aids and/or program modifications. Reasonable accommodations enable students with disabilities to have an equal opportunity to participate in an academic program or activity by providing alternative ways to accomplish the course requirements that eliminate or reduce disability-related barriers.

The OSA works with students with disabilities across all OHSU educational programs and campuses. Each school also has an assigned Program Accommodation Liaison (PAL), who acts as an "in-house" resource for students and faculty concerning student access, once accommodations are established.

Students are advised to contact the OSA as soon as possible to discuss eligibility for disability services; accommodations may take time to implement and cannot be applied

retroactively. All information regarding a student's disability is kept in accordance with state and federal laws.

WUHS: "Policy on Disability Accommodations: To obtain academic accommodations for this course, students with disabilities should contact the Center for Disability Issues and the Health Professions and the course director within ten days of the beginning of the course. Disability Services can be reached at ... "

UNLV: Disability Resource Center (DRC) Request for Accommodation: The University Disability Resource Center (DRC) provides resources for students with disabilities. The University complies with the provisions set forth in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, offering reasonable accommodations to qualified students with documented disabilities. Students who feel that they have a documented disability must make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available. The DRC will provide an eligible student with an official Academic Accommodation Plan to present the Office of Student Affairs and respective course directors. Please note that faculty can only provide accommodations when they are in receipt of an Academic Accommodation Plan. Faculty cannot provide a student with academic accommodations unless they are in receipt of this plan. Students registered with the DRC must submit a request for accommodations each semester. The DRC is located on the main campus in the Student Services Complex (SSC), Room 137, and the contact numbers are: VOICE (702) 895-0866, TTY (702) 895-0652, FAX (702) 895-0651.

ROSE: No response

UU: Disability Services <http://disability.utah.edu/>

The UUSOD seeks to provide equal access to its programs, services and activities for all dental students. The Center for Disability Services (CDS) provides accommodations and support for the educational development of dental students with disabilities. Although a candidate may voluntarily self-identify as a person with a disability, the UUSOD can only accommodate diagnosed disabilities. Students with a documented disability and students seeking to establish the existence of a disability and to request accommodation are required to meet with the CDS Director for recommended accommodations. The CDS will work closely with eligible students and the Office of Education and Student Life to arrange for approved accommodations. The UUSOD and CDS maintain a collegial, cooperative, and collaborative relationship to ensure compliance with federal and state regulations for students with disabilities.

For purposes of this procedure, a matriculated candidate becomes a dental student on the first day of class. The first day of orientation week is the first day of class. Students seeking accommodations for a disability must contact the University's Center for Disability Services (CDS). The student must follow procedures of the CDS to document the existence and the nature of the disability and to request accommodation.

1. To establish the existence of a disability and to request accommodation, candidates must contact the University's Center for Disability Services (CDS). The candidate must then follow the procedures of the CDS to document the existence and nature of the disability.
2. Once the need for reasonable accommodations has been established, the CDS and the UUSOD, in consultation with the candidate, will decide appropriate accommodations that will be specified in a written document, signed by all parties. All documents relating to the candidate's disability will be

placed in a confidential file separate from his/her academic records. The UUSOD will then direct the appropriate course directors to provide the accommodation.

3. If the UUSOD offers a candidate a reasonable accommodation and he or she refuses it and subsequently experiences academic difficulty, then the candidate will be treated as any other candidate who experiences academic difficulty.

4. A candidate may seek to establish a disability and request reasonable accommodation at any time before or after matriculation.

5. A candidate should claim and establish the existence of a disability prior to the onset of academic problems. The UUSOD shall have no obligation to remediate an academic failure resulting from a claimed disability that was not brought to the attention of the UUSOD and addressed in a timely fashion. Accommodations cannot be retroactive.

6. The UUSOD follows the guidelines for confidentiality and security of documentation outlined by the Family Educational Rights and Privacy Act (FERPA) and the Americans with Disabilities Act (ADA).

UOP:

[http://catalog.pacific.edu/sanfrancisco/divisionofstudentlife/#Determination Accommodation Request](http://catalog.pacific.edu/sanfrancisco/divisionofstudentlife/#Determination%20Accommodation%20Request).

UCSF: No response

UCLA: We consult the Office of Accessible Education at UCLA to issue the reasonable accommodations depending on the disability. In addition, we work with the Office of Student Affairs in our school to provide necessary testing accommodations (e.g. testing in a private area, altered testing format) to assist our student

USC: *The Office of Disability Services and Programs:*
http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html

provides certification for students with disabilities and helps arrange the relevant accommodations. Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each trimester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to DSP as early in the trimester as possible.

LLU: Loma Linda University is in compliance with the Americans with Disabilities Act, Sec. 504 of the Rehabilitation Act; as well as with local and state requirements. The University is committed to providing education—including support services and reasonable accommodations for disabilities—to qualified applicants for whom such accommodation does not fundamentally alter the chosen program or create an undue burden.

For information regarding accommodation for disability, the student should

consult the office of the dean of the school to which application for admission is being made.

Following acceptance, the student may be asked if he or she has a disability requiring accommodation. A student who desires accommodation for a disability (e.g., physical, learning, or psychological) identified after acceptance should consult the office of the dean regarding a request for accommodation. The accommodation request must be submitted in writing on the designated form. The completed form and the required supporting documentation will be evaluated by appropriate University entities to determine whether or not the applicant can be expected to perform the essential functions of the program. All discussions will remain confidential.

Disabled applicants and students

LLU School of Dentistry provides reasonable and appropriate accommodations in accordance with the Americans with Disabilities Act for individuals with documented disabilities who demonstrate a need for accommodation.

The Americans with Disabilities Act defines a person with a disability as an individual with a physical or mental impairment that substantially limits one or more major life activities. Problems such as English as a second language, test anxiety, or slow reading without an identified underlying physical or mental deficit, or failure to achieve a desired outcome are generally not covered by the Americans with Disabilities Act.

To be considered for an accommodation based on a learning disability, a student must experience marked difficulty when compared with the average person in the general population, not just other dental school students, in one or more basic academic areas as a result of a significant information processing or attentional disorder.

Students requesting accommodations must provide supporting documentation for the disability requiring accommodation, including:

- A report from a licensed professional approved by Loma Linda University School of Dentistry identifying the diagnosed disability and the recommended accommodations.
- Record of any previous accommodations provided by educational institutions or other testing agencies.
- If no prior accommodations were provided, the licensed professional should include a detailed explanation as to why no accommodations were given in the past and why they are needed now.

Documentation needs to be reviewed by the associate dean for admissions and student affairs, before accommodation is formally implemented. While awaiting assessment and documentation, temporary accommodation may be granted. The temporary accommodation will not exceed ninety (90) days.

Students requesting accommodation are responsible for:

- Reporting their request for accommodation to the Office of Admissions and Student Affairs
- Providing the supporting documentation

Combined Summary of Responses to 2018 National Agenda

Responses will be listed in the Following order:

1. AT Still
2. Colorado
3. Creighton
4. Iowa
5. Minnesota
6. Nebraska
7. SIU
8. UMKC

Curriculum

a. Operative Course(s):

How many semesters and in what year(s) is your operative dentistry course taught?

<p>1. AT Still</p> <p>Operative I (218.25 hrs.) – D1 Year, Semester 2 Operative II (57 hrs.) – D2 Year, Semester 1 Clinical Readiness (33 hrs.) – D2 Year, Semester 2</p>
<p>2. Colorado</p> <p>The main pre-clinical Operative Course is 1st year of Dental School, Spring and Summer semesters. Short hands on pre-clinical Operative course is also given to DS2 students in Spring semester. One operative didactic course is for DS2 students in Summer semester as well.</p>
<p>3. Creighton</p> <p>5 semesters</p> <ul style="list-style-type: none">• Second semester of D1 year (lecture and lab)• Both semesters of D2 year (lecture and lab)• Both semesters of D3 year (lecture only)
<p>4. Iowa</p> <ul style="list-style-type: none">• Freshmen (D1) year:<ol style="list-style-type: none">a. Dental Anatomy Course (Fall, Aug-Nov).b. Operative I (Spring, Nov-June)• Sophomore (D2) year: Operative II (Fall/Spring, Aug-June)• Junior (D3) year: Operative III (Fall/Spring, Aug-June)
<p>5. Minnesota</p> <p>The University of Minnesota School of Dentistry (UMinn SOD) is in the process of curriculum revision. Preclinical Operative Dentistry has involved three contiguous courses (Operative Dentistry I, II, & III). The way these courses have traditionally been positioned, they have not aligned evenly with the semester boundaries.</p> <p>Semesters:</p> <ol style="list-style-type: none">(1) Spring = January through April(2) Summer = May through June; summer break = July through August;(3) Fall = September through December. <p>Current Preclinic Course Schedule:</p> <ol style="list-style-type: none">(1) Operative I = May through October (summer break = July through August);(2) Operative II = November through January;(3) Operative III = February through April. Students are 2nd-year DDS. <p>Beginning in January 2019, the preclinical sequence will be shifted one semester earlier in the curriculum. The new Preclinical Course Schedule will be:</p>

(1) Operative I = January through April;
 (2) Operative II = May through September (summer break = July through August);
 (3) Operative III = October through December.
 For Operative I, students are still considered 1st-year.
 For Operative II & III they are considered 2nd-year.
 In addition to the 110 DDS-students, this course is partially attended by 8-10 dental therapy-students and 16 Program for Advanced Standing Students (PASS) (foreign-trained students). Dental therapy students take all of Operative I and a portion of Operative II & III—basically cutting out the indirect restoration topics. The PASS students begin preclinic in a separate intro course that last one month, and then they attend Operative III with the DDS-students.

6. Nebraska
 Two semesters. D-1, second semester; D-2, first semester

7. SIU
 1. 2 semesters
 2. D1 first semester, D2 second semester

8. UMKC
 2 SEMESTERS OF LAB IN D1 SPRING AND D2 FALL
 3 SEMESTERS OF OPERATIVE LECTURE D1 SPRING, D2 FALL AND D3 FALL.

How many hours per week are devoted to the operative dentistry course?

1. AT Still
 Modular curriculum

2. Colorado
 For DS1 have 2 hour lecture and 3 hour lab for each student. 80 student class is divided in two groups for simulation clinic every week.

3. Creighton

- D1: Lecture 1 hour, Lab 2.5 hours
- D2: Lecture 2 hours, Lab 5 hours
- D3: Lecture 1 hour

4. Iowa
 Dental Anatomy Course: 8 hours/week
 Operative I course – 8 hours /week
 Operative II course – 8 hours /week
 Operative III course (clerkship rotation model, 6-week rotation for each set of 10-12 students) Mon-Friday, from 8-5pm

5. Minnesota
 Operative Dentistry I, II, & III meet Tuesday and Thursday afternoons. Lecture is from 1-2 pm and lab is from 2-5 pm. This means there are 2 hours of lecture and 6 hours of lab per week.

6. Nebraska
 Each course has two hours of lecture and 6 hours of laboratory time per week

7. SIU
 4 hours

8. UMKC
 D1 AND D2 = 4 HOURS 1 LECTURE/3LAB
 D3 1 HOUR LECTURE PER WEEK

What is/are the course title(s), Credit Hours and Course Description?

1. AT Still

Operative Dentistry I
Operative Dentistry II
Clinical Readiness

2. How many credit hours are given for each course?

Operative Dentistry I – 13 credit hours
Operative Dentistry II – 2.7 credit hours
Clinical Readiness – N/A

3. Please list the course description(s) as seen in your Bulletin.

- a. Operative I: This course will introduce the students to the basic theory and techniques of operative dentistry. Students will have the opportunity to combine the theoretical understanding and integration of clinical skills with medical and material science knowledge, develop technical skills in operative dentistry through the learning of basic intra-coronal preparation and restorations in single teeth, perform self-assessments, and develop/demonstrate professional conduct, attitude, and appearance. The course will provide students the opportunity to apply clinical and professional skills in a simulated practice environment
- b. Operative II: This course is a continuation of the Operative Dentistry (D1) course. This course will expand the students' knowledge of the theory and techniques of operative dentistry. Students will have the opportunity to combine the theoretical understanding and integration of clinical skills with medical science knowledge, develop properly sequenced treatment plans, develop technical skills in operative dentistry through learning more about intra-coronal preparation and restorations in single teeth, develop clinical judgment, perform self-assessments, and develop their professional conduct, attitude and appearance. The course will provide students the opportunity to apply clinical and professional skills in a simulated practice environment.
- c. Clinical Readiness: This course will require the second-year dental student to effectively manage simulated patient treatment in all areas of restorative dentistry (including operative dentistry, as well as fixed and removable prosthetic dentistry). Students will be required to consider time management during the daily projects and practical examinations. Daily projects will allow the student the opportunity to practice skills and work with various restorative materials while practical examinations will test the students on their readiness to progress to the supervised D3 clinical setting.

2. Colorado

Principals of Operative Dentistry
Direct Restorations 1 / 2 Didactic and Clinic/Lab

DSOP 5504 Principles of Operative Dentistry – Direct Restorations 1 1.8 credit hours
DSOP 5506 Principles of Operative Dentistry – Direct Restorations 2 0.6 credit hours
DSOP 5507 Principles of Operative Dentistry – Direct Restorations Lab 2 0.4 credit hours
DSOP 5505 Principles of Operative Dentistry – Direct Restorations 1 Lab 1.0 credit hours

- Didactic: The course is designed to teach students the principles of operative dentistry and the direct restoration of teeth from a problem specific approach.
- Sim Clinic: The course integrates the principles of operative dentistry and direct restoration in a case-based laboratory environment.

3. Creighton

- GDS 135. Dental Materials and Introduction to Operative Dentistry Lecture. 4 credits. SP
Composition and properties of the materials used in dentistry. Basic information on the design of preparatory work necessary for the mouth incident to the reception of these materials. A group research project designed to lead to a table clinic presentation will be conducted under the guidance of a faculty mentor. 2R, 16W.
- GDS 136. Dental Materials and Introduction to Operative Dentistry Laboratory. 4 credits. SP

Application of materials used in dentistry with an emphasis on the treatment of single surface tooth lesions. 2L, 16W.

- GDO 213. Operative Dentistry Lecture. 2 credits. FA

Introduction to diagnosis, prevention and treatment of disease, developmental defects, or traumatic injuries of the hard tissues of individual teeth. Emphasis is placed on mechanical aspects of preparing and restoring individual teeth with specific restorative materials, the physical and biomechanical properties of these materials, and the development of problem solving skills to select appropriate treatments and materials. 1R, 16W.

- GDO 214. Operative Dentistry Laboratory. 7 credits. FA

Application of surgical principles to the treatment of diseases and defects of the teeth. Preparations and restorations are performed on natural teeth mounted in stone, typodont models, and plaster teeth. Detailed surgical excisions are made in harmony with principles of tooth anatomy, pathology of the lesions, and masticatory function. Manipulative techniques of the materials commonly employed in operative dentistry are emphasized. Specifically, Class I, II and V amalgams as well as Class I, II, IV and V resin composition are covered. 7L, 16W.

- GDO 233. Operative Dentistry Lecture. 2 credits. SP

Diagnosis, prevention and treatment of disease, developmental defects, or traumatic injuries of the hard tissues of individual teeth. Emphasis is placed on mechanical aspects of preparing and restoring individual teeth with specific restorative materials, the physical and biomechanical properties of these materials, and the development of problem solving skills to select appropriate treatments and materials. 1R, 16W.

- GDO 234. Operative Dentistry Laboratory. 7 credits. SP

Application of surgical principles to the treatment of diseases and defects of the teeth. Preparations and restorations are performed on natural teeth mounted in stone, typodont models, and plaster teeth. Detailed surgical excisions are made in harmony with principles of tooth anatomy, pathology of the lesions, and masticatory function. Manipulative techniques of the materials commonly employed in operative dentistry are emphasized. Specifically, Class II indirect gold as well as Class II, III, IV and V resin composites are covered. 7L, 8W; 6L, 8W.

- GDO 313. Operative Dentistry Lecture. 2 credits. FA

General review to reinforce the principles of operative dentistry procedures with consideration for the transition to clinical application. Special emphasis is placed on recognition and treatment of pathology pertinent to the teeth and the evaluation of acceptable dental materials and techniques. 1R, 16W.

- GDO 333. Operative Dentistry Lecture. 2 credits. SP

This course is an introduction to contemporary operative dental procedures, including the evaluation and review of newly developed restorative materials. Special emphasis is placed on non-carious conditions such as cracked tooth syndrome and elective esthetic dentistry. 1R, 16W.

4. Iowa

- OPER:8120:0800 Dental Anatomy: 3 hours
- OPER:8122:0800 Operative Dentistry I: 6 hours
- OPER:8240:0800 Operative Dentistry II: 5 hours
- OPER:8370:0801 Fall18 Operative Dentistry III: 4 hours

- OPER:8120:0800 Dental Anatomy: Basic dental terminology and nomenclature, human tooth morphology, creation of tooth crowns with wax.

- OPER:8122:0800 Operative Dentistry I: Principles and design of cavity preparations; placement of restorative materials using simulated patients

- OPER:8240:0800 Operative Dentistry II: Principles of caries and non-carious lesion management, design of cavity preparations, restoration of teeth, patient management, pain control; esthetic dentistry; tooth bleaching, tooth recontouring, esthetic buildups with dental composite; exercises on mannequins in simulation clinic and procedures performed on patients in operative clinic.

- OPER:8370:0801 Operative Dentistry III: Combination of didactic and clinical aspects of operative dentistry; medical and surgical management of dental disease; emphasis on minimally invasive dentistry with advanced aesthetic principles.

5. Minnesota

Operative Dentistry I. Credit hours 1.7 lecture, 2.3 lab.

Operative Dentistry II. Credit hours 2.1 lecture, 2.9 lab.

Operative Dentistry III. Credit hours 3.8 lecture & lab.

Course Description: The teaching of Pre-clinical Operative Dentistry at the University of Minnesota is divided into five courses. The first two courses are linked lecture (DDS 6434, DT 5432) and laboratory (DDS 6435, DT 5433) courses, known collectively as Operative Dentistry I. These courses teach the student how to treat dental caries, both therapeutic treatment of the underlying pathology as well as the surgical treatment of the early caries lesion. These courses are followed by another set of linked lecture and laboratory courses, known collectively as Operative Dentistry II. These courses teach the student how to surgically manage more advanced caries lesions. This is followed by Operative Dentistry III, a course designed to facilitate the transition of students from the pre-clinic laboratory to the clinic setting. In this course, students are required to demonstrate competency in the surgical treatment of dental caries prior to being certified ready for patient treatment. For dental therapy students, the Operative Dentistry II and III courses have been shortened, by the elimination of cast gold and porcelain restorations, and combined into a single course.

6. Nebraska

532. Operative Dentistry I (4 cr) Prereq: ADRS 529, 531 A lecture-laboratory course covering the principles of conservative cavity preparations and restoration of the adult dentition using dental amalgam, composite resin, glass ionomer cement and CAD/CAM preparation and restoration.

555. Operative Dentistry II (4 cr) Prereq: ADRS 529, 530, 531, 532 A lecture-laboratory course concerning advanced applications of direct restorations and the principles of tooth preparation for and fabrication of intracoronal, partial veneer indirect restorations and CAD/CAM preparations and restorations.

7. SIU

Operative I = 3.5 credit hours

Operative II = 2.5 credit hours

a. Operative I - This Course will introduce the student to the biomechanical principles of cavity preparations as related to tooth morphology, manipulation of cutting instruments, and conservation of tooth structure. Restoration of the prepared teeth will be accomplished with the appropriate restorative materials.

b. Operative II - This course is an extension of the biomechanical principles and concepts of operative dental restorations initiated in the Operative Dentistry I course. Tooth preparation, placement of liners and bases, use of dentin adhesives, restoration placement techniques, and restoration of biomechanically sound morphologic tooth contours will be emphasized. Some laboratory exercises will involve the use of natural teeth. Indications, diagnosis, and principles of treatment using operative dental restorations will be discussed.

8. UMKC

D6305 AND D6305L OPERATIVE I LECTURE AND LAB

D6410 AND D6410L OPERATIVE II LECTURE AND LAB

D6411 OPERATIVE III LECTURE

1 FOR LECTURE AND 2 FOR LAB

D6305 The primary goals of Operative dentistry include the diagnosis and prevention of disease, the preservation of the natural dentition and the restoration of the health, function and esthetics of the stomatognathic system. Operative dentistry corrects loss of tooth structure due to caries, trauma, erosion, abrasion and developmental anomalies.

The psychomotor skills of the dentist must be highly developed in order that they may provide quality dental care. Since the quality of care affects the longevity of restorations, the development and maintenance of these skills must be a top priority for both the dental student and the practicing dentist. The dental student is challenged to develop these skills to a level that will permit them to provide superior dental care to patients.

In order to maximize the benefits of each lecture and laboratory session, students will be expected to study the Operative textbook and the laboratory manual in preparation for each lecture period and laboratory project.

D6305L Restorative procedures discussed in Course D6305 are performed on laboratory manikins

D6410 This is the second lecture course in a three part series of Operative Dentistry. In this course, students are expected to continue developing their skills in amalgam preparations and restorations, as well as learn and hone skills in composite preparations and restorations. Additionally, students will learn about caries as a disease process and how to restore carious lesions in patients.

D6410L A continuation of DENT 6305L. Restorative procedures are performed on laboratory manikins and extracted teeth.

D6411 A continuation of the Operative Dentistry courses, this course introduces third year dental students to the materials, procedures, and concepts to esthetically optimize a patient's smile within the context of comprehensive dental care. Emphasis will be placed on relevant elements required to discern risk and prognosis in determining the appropriate treatment plan for more complex esthetic cases.

What didactic resources does your Operative course(s) utilize?

1. Required textbook(s)?
2. If Yes, which one(s)?
3. Lab manuals
4. Course packets
5. Handouts
6. Live hands-on demonstrations
7. You Tube videos (public domain)
8. Self-made videos (private domain) – Yes
 - a) If Yes, would you be willing to share?
9. Professionally-made videos (purchased for private use)
 - If Yes, how do you like them? Who made the video(s)?
 - If No, would your school consider purchasing high quality videos?

1. AT Still

1. No required textbook
2. If Yes, which one(s)?
3. Lab manuals – Yes
4. Course packets – No
5. Handouts – Yes; grading rubrics
6. Live hands-on demonstrations – Yes
7. You Tube videos (public domain) – No
8. Self-made videos (private domain) – Yes
 - a. If Yes, would you be willing to share? – Not sure, need to check the school's copyright guidelines
9. Professionally-made videos (purchased for private use) – Yes
 - d. If Yes, how do you like them? Who made the video(s)? – They could use updating; they were prepared by an external faculty
 - e. If No, would your school consider purchasing high quality videos? – No

2. Colorado

1. Required textbook(s)? - Yes
 - a. If Yes, which one(s)?
 Heymann, T.M., et. al., ed.: Sturdevant's ART AND SCIENCE OF OPERATIVE DENTISTRY. 6th ed. Mosby, St. Louis, 2013.
 Summitt, T.M., et. al.: FUNDAMENTALS OF OPERATIVE DENTISTRY A CONTEMPORARY APPROACH. 4th ed. Quintessence Books, 2016.
2. Lab manuals - Yes
3. Course packets - Yes
4. Handouts - No
5. Live hands-on demonstrations - Yes
6. Self-made videos (private domain) - Yes
 - a. If Yes, would you be willing to share? - Yes
7. You Tube videos (public domain) - Yes, couple
8. Professionally-made videos (purchased for private use)? - Not yet, but our school just hired a person who can help us with those.
 - a. If Yes, how do you like them? Who made the video(s)?
 - b. If No, would your school consider purchasing high quality videos? - Yes

3. Creighton

- iv. What didactic resources does your Operative course(s) utilize?
 - Required textbook(s)? Yes
 - If Yes, which one(s)?
 Summitt's Fundamentals of Operative Dentistry: A Contemporary Approach, Fourth Edition
 - Lab manuals No
 - Course packets No
 - Handouts Yes - Handouts are either printed prior to lecture and then given at the beginning for notes (PowerPoints) or lectures are uploaded to Blueline to be followed during lecture or printed prior to lecture.
 - Live hands-on demonstrations Yes -How to place a matrix, how to mix Fuji IX and place in a prep for example.
 - Self-made videos (private domain) Yes
 - If Yes, would you be willing to share? Yes
 - You Tube videos (public domain) Yes - Dr. Scott Radniecki has a You Tube channel and videos are uploaded on this site—many of which we have made in the past couple years to demo matrix placement, amalgam condensation and carving, etc. We also use videos made by the companies that supply the products we use in lab (i.e., Ultradent has very good step by step videos for polishing, fiber post and core, bleaching tray fabrication)
 - Professionally-made videos (purchased for private use) No
 - If Yes, how do you like them? Who made the video(s)?
 - If No, would your school consider purchasing high quality videos? If we had the funds to do so

4. Iowa

1. Required textbook(s)? yes
 - a) Concise Dental Anatomy and Morphology. James L. Fuller, Gerald E. Denehy, Thomas M. Schulein
 - b) Summitt's Fundamentals of Operative Dentistry: A Contemporary Approach, 4th Edition Thomas J. Hilton, Jack L. Ferracane, James C. Broome, Ferracane
 - c) Craig's Restorative Dental Materials, 14th edition by Ronald L. Sakaguchi DDS PhD MS MBA, Jack Ferracane PhD, John M. Powers PhD
2. No, everything is online on ICON
3. No, everything online on ICON.
4. No. everything online on ICON.
5. Yes (esthetic exercises, amalgam restorations, waxing for dental anatomy)
6. Yes
 - a. YES
 7. YES

8. NO
b. Might be possible

5. Minnesota

	Operative I	Operative II	Operative III
1. Textbooks	None required	None required	None required
2. Lab manuals	Part of course manual	Part of course manual	None
3. Course packets	Course manual	Course manual	None
4. Handouts	None	None	Yes
5. Live demos	Patient-operator positioning, hand instrument sharpening & grasps	None	Clinical field isolation (cotton roll, cotton roll holder, isovac, dry angle, hygroformic); patient positioning
6. Private videos	Caries removal, cavity preparations, condensing & carving amalgam	Caries removal, Amalgam crown restoration	Stratification technique for direct anterior restoration
7. YouTube videos	None	None	None
8. Purchased videos	None	Pin placement, Slot placement, Condensing & carving amalgam, Composite restoration placement (sturdevant's textbook website)	None

6. Nebraska

1. YES
a. Summitt's Fundamentals of Operative Dentistry A Contemporary Approach
2, 3 and 4 are all placed on Canvas. We do not have lab manuals, each session lab and lecture materials are available. Each student is required to have a tablet or laptop in lectures and labs.
5. One on one demonstrations, not generally one for the entire class
6. Not currently
7. Occasionally
8. No
b. Perhaps, but it hasn't been discussed.

7. SIU

1. YES
a. Sturdevant's The Art and Science of Operative Dentistry
2. Operative I laboratory manual by Mark Belcher
3. no
4. Reference materials on:
i. Caries risk assessment
ii. Sectional matrix system
iii. Evaluation forms
5. One-on-one or small groups with instructor covering students area

- 6. (private domain)
 - a. Yes
 - i. Class I amalgam restoration
 - ii. Mixing calcium hydroxide (Dycal)
 - iii. Mixing, placing IRM
- 7. (public domain)
 - a. Class V amalgam restorations
 - b. Dentsply Palodent Plus sectional matrix placement
 - c. Class II composite restoration placement
- 8. YES (purchased for private use)
 - a.
 - b. Yes

- 8. UMKC**
- 1. YES
 - a. STURDEVANT'S ART AND SCIENCE OF OPERATIVE DENTISTRY
 - 2. YES. DEVELOPED IN HOUSE
 - 6. YES
 - a. I WOULD, SCHOOL MAYBE NOT
 - 7. NO
 - 8. NO
 - b. DEPENDS ON PRICE- LIKELY NOT AT THIS TIME

What other resources do you provide? (Lab manuals, course packets, supplementary reading, etc.).

- 1. AT Still**
Ideally prepared teeth for example, EBD presentations
- 2. Colorado**
Mainly Panapto lectures, lab manuals and course packets. We do use extracted teeth DS2 course, each student gets mounted 3 teeth.
- 3. Creighton** - Some supplementary reading of journal articles as applies to lecture and lab.
- 4. Iowa**
Supplementary reading/articles, links to website on ICON. Online modules for ICDAS training.
- 5. Minnesota**
Operative Dentistry I & II suggest "Sturdevant's Art & Science of Operative Dentistry" (Roberson, 2012, 6th edition, CV Mosby) as supplemental reading.
- 6. Nebraska**
- 7. SIU**
- 8. UMKC**
LAB MANUAL, EXTRAORDINARY FACULTY

Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? If yes, please describe.

- 1. AT Still**
Learn-A-Prep plate exercise
- 2. Colorado**
We do have a new Haptics Advanced Technology Suite. Currently we have 2 Simodont units and 2 more in the procurement process. They are being used in Intro to Dentistry Class DS2 Fall semester.

<p>3. Creighton - YES - Students use extracted teeth set up in small stone blocks to excavate real caries, obtain a clean DEJ, etc. These have been sterilized prior to use in the lab and are stored in an appropriate solution for disinfection.</p>
<p>4. Iowa Yes, we use for most the exercises caries simulated teeth from Kilgore and we prepped also cavities for practical exams to have some consistency.</p>
<p>5. Minnesota Prior to Preclinical Operative Dentistry students take Oral Anatomy (where they draw and wax-up teeth to learn 3D tooth anatomy) and Introduction to Psychomotor Skills Development (where students use DentSim units to develop preliminary hand-eye coordination and mirror skills).</p> <p>During the Operative preclinic courses, use is made of natural (extracted) teeth for certain techniques where the tyodont simulation is inadequate. These exercises include: “caries removal” (in Operative I, II & III) restoration of cervical abrasion/abfraction (Operative I) restoration of proximal root caries (Operative I) indirect pulp capping (Operative II) bonding to enamel (Operative II) pin placement (Operative II) secondary retentive features for cusp replacement (Operative II)</p>
<p>6. Nebraska In the Operative II course, most of the laboratory sessions are completed in our clinic using simulators.</p>
<p>7. SIU Yes, during Operative II, D2 second semester, students mount extracted teeth on an articulator to practice caries excavation and the removal of existing restorations in a more “real life” setting just prior to their clinical treatment experience.</p>
<p>8. UMKC YES, PATIENT EXPERIENCES</p>

Is there any OSCE exam in the operative course in your school? If yes, please describe.

<p>1. AT Still - YES Typical OSCE format: instrument identification, cavity preparation and restoration critiquing, etc.</p>
<p>2. Colorado - NO</p>
<p>3. Creighton NO</p>
<p>4. Iowa - Instrument OSCE exam. The exam consists of 40 instruments for each student. Each student sits randomly and has a sheet where they need to identify and write the instrument’s name before they move to another seat. Each instrument is identified by the sequence number where the student is sitting at. Forty seconds are allowed for each instrument identification. Normally, the time for the test is one hour considered that an explanation about the sequence of the test needs to be reinforced on that day.</p>
<p>5. Minnesota In the third week of Operative Dentistry I, students take an Instrument Identification Quiz. It is a timed exercise, one minute per station, where students identify instruments and burs and answer questions about them.</p>
<p>6. Nebraska No</p>
<p>7. SIU No</p>
<p>8. UMKC YES, THERE IS AN OPERATIVE QUESTION ON THE COMPREHENSIVE OSCE- EVALUATING A COMPOSITE PREPARATION (THOUGH NOT A DEDICATED OPERATIVE OSCE)</p>

Operative Faculty:

How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?

1. AT Still

Full-Time: 3

Part-Time: 4

Class Size: 42

2. Colorado

All didactic lectures are given by two faculty. In the Sim Clinic we have 40 students at one time and 6 faculties.

3. Creighton - Full-time faculty =12; Part-time = 11

4. Iowa

8 faculty per session

5. Minnesota

LABORATORY: Students are arranged in the preclinical laboratory (basically) ten to a bench; and there are 12 benches. In each lab session we staff each bench with one instructor, thus producing a faculty-student ratio of 10:1. The majority of these bench instructors are part-time faculty, and it is common to have absences. To deal with this contingency, we try to staff each lab session with a couple extra faculty—we call them floats. A float can fill in at a bench when the assigned bench instructor is absent. If all bench instructors are present, the float instructor can move through the lab looking for benches with a backup, or they can be used to help out in clinic.

The preclinic lab sessions run Tuesdays and Thursdays from 2-5 PM. Currently, we have 19 faculty assigned to preclinic—13 of which are assigned two days per week, and 6 of which are assigned one day per week (3 on Tuesdays and 3 on Thursdays). Although having a single bench instructor covering a bench both days of the week may be preferable for continuity of teaching and evaluation, the reality is that we do not have enough part time faculty willing to put in two days per week. To ameliorate any affect this may have on students, we rotate bench instructors half way through each course, and insure benches that had relied on two instructors are assigned a single 2-day-per-week instructor.

Of the 19 faculty assigned to the preclinic lab, four are full-time faculty (including the course director) and 15 are part-time. The four full-time faculty represent the course directors of Operative Dentistry I, II, III, and Oral Anatomy—when not acting as “course director,” these individuals act as bench instructors in the other courses.

We have had to fight efforts to reduce the number of faculty in the preclinical laboratory setting. During years of retrenchment or financial hardship it is common to look at reducing the number of faculty as a way of reducing overhead. However, the following description demonstrates how this is not possible: With a student-faculty ratio of 10:1, if an instructor spends 5-minutes with each student, it is 50 minutes before the instructor is back to that student again, and the instructor will only be able to have three such encounters (15-minutes total) with the student during the typical lab session. If each bench instructor covered one and a half benches, the number of bench instructors can be reduced by 1/3rd—but this produces a student-faculty ratio of 15:1, meaning if an instructor spends 5-minutes with each student, it is one hour and fifteen minutes before the instructor is back to that student again, and the instructor will only be able to have two such encounters (10-minutes total) with the student during the typical lab session.

DIDACTIC: Lectures (1-hour in length) are given just before lab sessions. All lecture content is presented by full-time faculty. The vast majority of this is by the course director. A few lectures in each course are presented by content experts in other disciplines (e.g., Endodontics, Biomaterials, Radiology, etc.)

6. Nebraska

In Operative I there were 3 full-time and 2 part-time faculty. Operative II there were 5 full-time faculty when the courses were last taught. Because of tight schedules it may not be the same faculty on

Monday as it is on Thursday or Friday. There are others from the faculty and outside dentists that are utilized for guest lectures and to help with the CEREC exercises.

7. SIU

Full time = 2 (currently one open position actively being searched to fill)

Part time = 2 or 3

8. UMKC

1 COURSE DIRECTOR,

9 FACULTY,

13 TAs (lab), larger department

How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (Formal presentations, Photographs, Typodont, etc.?)

1. AT Still

- Regular attendance in lecture presentation and faculty calibration meetings to discuss evaluation/grading criteria

2. Colorado

Calibration is done within the course. All faculty are asked to attend the lectures. We also meet to calibrate on grading, especially when course starts and before practical examinations.

3. Creighton - Formal presentations that count as CE, typodonts during grading. We are trying to do a better job with calibration, especially as we add new faculty members and grow our class size.

4. Iowa

CLINICAL TEACHING - We have an assigned day (teaching in-service), wherein we have all the faculty, including adjuncts. We do calibration exercises through Formal presentations using clinical photographs and questions (vignettes).

SIM CLINIC TEACHING - For the Operative I Course we also have additional calibration exercises before each practical for standardizing the evaluations.

5. Minnesota

Here the term calibrate refers to attempts at making faculty who teach in a course more uniform in message and evaluation. I would suggest that the more accurate term is probably standardization.

Standardization involves selection of a standard to which the activities of faculty can be compared and processes employed to minimize the differences. This often involves training the faculty in the associated standards, and making them aware of known sources of systematic error (bias).

The term calibration is usually used in the conduct of clinical research—especially multicenter studies.

Calibration includes attempts at standardizing examiners, but also generally includes validation of data gathering methods and measurement of agreement between examiners and within individual examiners over time.

Our standardization efforts for Operative I, II, & III laboratory center around a meeting that is held each day with the attending preclinic faculty (bench instructors). On a typical preclinic day, lecture is held from 1-2 pm. Bench instructors are encouraged to attend lecture, but generally only two or three are able.

Students then head immediately to the preclinical simulation laboratory where they set up and get started with the day's work. Bench instructors meet with the course director at 2 pm in an adjacent preclinic conference room. During this meeting selected slides from the lecture are presented in order to inform bench instructors of what the students have been told and what they are expected to accomplish in lab that day. This should help insure uniformity of message.

Then the evaluation instrument (rubric) is presented for the work to be evaluated that day, each criterion (point of evaluation) described, and the evaluation scale (No deviation from ideal, Slight deviation from ideal, Significant deviation from ideal, Severe deviation from ideal) explained for each criterion.

Photographs of sample work from previous years are presented to illustrate ideal student performance and deviations from ideal of various magnitudes—with discussion encouraged and freely given. This should help insure uniformity of evaluation.

This standardization meeting generally takes 30 minutes (± 10 minutes). Instructors then enter the laboratory where students are set up and working, and are then at their bench until the lab session ends at 5 pm.

We do attempt some calibration of preclinical and clinical faculty at least once per year, usually in the late fall or early winter. This usually involves some material presented for evaluation (e.g., multiple typodonts with restorations on the same tooth of varying qualities). At the annual February Operative Dentistry In-Service meeting, the results of this evaluation exercise are presented, the causes of evaluation dispersion explored, additional training in areas of significant variability provided, and then some re-measurement to assess the effectiveness of the session. Because nearly all the clinical and preclinical are experienced clinicians, there is generally very good agreement on the cut-off between clinically acceptable and clinically unacceptable work. The division between ideal and less-than-ideal-but-acceptable is much less well agreed upon.

6. Nebraska

Since we are a small group in the preclinical courses, we discuss the projects and have worked together for many years. Clinically, we do have an annual calibration session for all full and part time faculty.

7. SIU

1. Collaboration with experienced faculty during lab sessions, practical exam evaluations, clinical sessions and clinical competency examinations
2. Clinic is closed one half day per week for formal calibration across all clinical faculty

8. UMKC

PHOTOS, PRE-GRADING MEETINGS TO REVIEW GRADING CRITERIA, PAIRING NEW FACULTY WITH OLD FACULTY TO CO-GRADE, PRESENTATIONS

Clinical- monthly department meetings to cover large issues, not designated calibration

How are patient treatment plans developed?

- i. Who is involved in the process?
- ii. How are these patients then assigned to students?
- iii. How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school?

1. AT Still

- i. Treatment plans are typically developed in phases following completion of the D0150 Comprehensive Examination depending on the complexity of the patient's treatment needs. Students are encouraged to follow treatment sequencing based on emergent/urgent treatment and disease control first, followed by case review prior to initiating the definitive phase of treatment.
- ii. **Comprehensive Care Unit Directors** – serve as the restorative faculty and oversee proper patient management and enforce protocol; assist students in developing treatment sequencing
Specialty Care Unit Directors – serve as consulting specialists (prosthodontics, endodontics, periodontics, oral/maxillofacial pathology, oral surgery, orthodontics, implants, esthetics)
- iii. **Intake Clinic** – typically, the student that performs the Intake Exam is assigned the patient for a comprehensive exam and treatment planning. The wait-list for the Intake Clinic can vary, but typically is up to 2 months. Upon completion, the 2nd visit is the comprehensive exam and treatment planning. The 3rd visit is usually when treatment begins. Sometimes, the 4th visit if the comprehensive exam takes two appointments. Our patient population can pose scheduling and time difficulties. In certain cases where patients are referrals to our specialty clinics, actual treatment is sometimes initiated at the 1st visit.

1. **Colorado** - Our new patients after screening are seen in comprehensive Care Clinics for oral diagnosis.

- i Comprehensive Care faculty
- ii Patients are assigned for Oral diagnosis and they complete the treatment or students receive patients from upper graduating classmate for comprehensive care.
- iii It takes about 2-3 appointments. It does include: head and neck exam, dental exam and treatment planning. Can be done in one appointments with some cases and graduating students.

3. **Creighton** - Pt treatment plans are developed primarily in our Diagnostic Sciences (DS) department. Pts are assigned to DS as new patients after going through our Assessment Clinic to make sure that

they are acceptable for dental student care. Secondly, some comprehensive and periodic exams are done in our General Dentistry department with the development of treatment plans. Students obtain all perio probe depths, initial charting of both present conditions and existing restorations, consults obtained prn for prosth, perio, endo, OS, and then construction of one or more treatment plans based on the complexity of the case.

i. Assessment Clinic

- Faculty examines prospective new pt and orders x-rays
- Students take x-rays
- Accepted pts, then assigned to DS
- Rejected pts, seek care elsewhere

Diagnostic Sciences Clinic

- Students performs comprehensive exam
- Faculty review and make any necessary changes, orders consults as appropriate
- Student finishes consults and draws up one or multiple treatment plans
- Faculty review proposed treatment plans for accuracy
- Pt selects TX plan that can reasonably be done within 6-12 months

General Dentistry Clinic (same as DS Clinic)

- Students performs comprehensive exam
- Faculty review and make any necessary changes, orders consults as appropriate
- Student finishes consults and draws up one or multiple treatment plans
- Faculty review proposed treatment plans for accuracy
- Pt selects TX plan that can reasonably be done within 6-12 months

ii. Students are assigned patients as they come out of our Assessment Clinic. Pts needs are recorded on a pink sheet and distributed to the staff Pt Care Coordinator (PCC). The PCC can then see that John Smith needs endo, perio and restorative, and they can assign that pt. to a student who has these same requirement needs. This is planned to expand to include both the PCC and a Group Leader (DDS/DMD) as we move to a more practitioner-guided approach to assigning patients. Students may skip the Assessment Clinic portion if they are bringing a pt. in whom they know (mother, friend, etc.).

iii. This varies depending on the amount of consults needed, the complexity of the case, pt availability and student availability (some students are on many block rotations during a semester). However, delay of dental treatment is our number patient complaint. We are trying to speed the process for our pt. population.

4. Iowa

i. The patient is first seen in Admissions department where the students and faculty do a quick screen/triaging and order the necessary radiographs. The patient is then seen by Oral Diagnosis department for comprehensive exam and treatment planning by Juniors (D3).

Students in Family dentistry (Seniors, D4) have a comprehensive care model so they do their own comprehensive Exam and treatment planning and treatment.

ii. Based on the sequence of the Treatment plan developed in Oral Diagnosis, the patient is then appointed in various departments for the Sophomore (D2) and Junior (D3) clinics.

iii. Around 6-7 weeks

5. Minnesota

i. There is no separate screening or treatment planning clinic. All new patients are assigned to a color group (Comprehensive Care Clinic). Each color group is supervised by two faculty members: one from the Division of Operative Dentistry (Department of Restorative Sciences) and one from the Division of Comprehensive Care (Department of Primary Dental Care). The student and one or both of these clinical faculty provide a comprehensive examination and develop a treatment plan—utilizing consults to specialty Divisions (Prosthodontics, Endodontics, Periodontics, Oral Surgery, Oral Pathology) as necessary.

ii. Most of the time the student who developed the treatment plan will take the case. However, if another student needs the work, the case can be transferred. There are also times when two students will cooperatively treat a patient—this occurs when different aspects of the treatment plan help different students round out their educational experience. For example, one student will complete the periodontal

treatment because they need scaling and root planning experience, while the other student will manage the rest of the care. There is always one student assigned as the primary care giver.

iii. Depending on the difficulty of the case, treatment planning may take from one to two appointments. Actual treatment generally begins with the second or third appointment. If a new patient presents with a chief complaint, often palliative treatment will be provided at the first appointment, instead of, or in addition to, the comprehensive exam. Sometimes a prophy is performed at the first appointment.

6. Nebraska

i. Incoming patients are screened and treatment plans are developed with students and Clinical Group Leaders. Specialty faculty or residents are brought in as needed for consultations.

ii. The patients are assigned to students within that color group by the Group Leaders who make the assignments mindful of each student's need. This is also coordinated with the Group Practice Coordinator.

7. SIU

One clinical session scheduled after oral diagnosis and radiograph appointment is complete

i. D4, D3, periodontist and team leader or representative

ii. Students that treatment plan the patient are assigned

iii. Anywhere from 1 month to 4 months currently

1. Patient returns paper work

2. 1 month wait for screening appointment (10 occur/day)

3. Once accepted as a patient takes 1-2 weeks to schedule treatment planning appointment

4. Treatment planning appointment can turn into diagnostic impressions or prophy if a simple case and if the student performing treatment plan is in need of more patients

5. If patient needs to be assigned to another student the team leader will assign the patient and the student should see them within a week or so

6. Exception: removable, if at the screening appointment the patient is determined to need:

a. partial dentures the patient skips the treatment planning rotation and is directly assigned to a student to develop the treatment plan

b. F/F the patient skips the treatment planning rotation and is advised the wait may be up to four months before being assigned to a student for treatment planning due to the abundance of denture patients

8. UMKC

i. DESIGNATED TREATMENT PLANNERS IN EACH TEAM MEET WITH INDIVIDUAL STUDENTS ONE ON ONE, study models, consultations, QA for removable, etc. should be complete prior to treatment planning. (This has become an issue with student preparedness- they will often ask for treatment plan approval the day the patient arrives for treatment, etc.)

ii. ALREADY ASSIGNED (COMPREHENSIVE CARE) faculty screen and identify needs. They are then assigned to students based on student's requests.

iii. 3-4 MONTHS (but asap after initial exam)

Cariology

Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?

i. If No, why not?

ii If Yes, is it mandatory or optional?

iii If Yes, do students use them during licensing examinations?

iv If Yes, please list the specific product(s), color(s), and manufacturer(s).

1. AT Still

i. **Pre-Clinic:** No

Clinic: Yes, but not standard, per faculty discretion or student interest

<ul style="list-style-type: none"> ii Optional – at the discretion of faculty member iv Centrix Exposé – blue extra-fine caries indicator
<p>2. Colorado - No, but we do have it available on clinic floor when requested by the faculty.</p> <ul style="list-style-type: none"> i. If No, why not? We teach caries removal with slow speed round bur and spoon excavator. ii. If Yes, is it mandatory or optional? Optional, only if faculty wants to show students. iii. If Yes, do students use them during licensing examinations? Do not know. iv. If Yes, please list the specific product(s), color(s), and manufacturer(s).
<p>3. Creighton - Yes</p> <ul style="list-style-type: none"> i. N/A ii. Optional iii. They may if they choose to. iv. Ultradent Sable Seek, Dark Green
<p>4. Iowa - NO</p> <p>i. If No, why not? According to the evidence, the dyes stain reparative affected dentin that should be preserved for remineralization. Also the literature does not support the accuracy of caries detecting dyes as a diagnostic tool before performing caries removal.</p>
<p>5. Minnesota</p> <p>No. The primary reason is concern that the dyes promote needless removal of uninfected tooth tissue.¹ Secondary reasons include that dye residues can discolor esthetic restorations² and potentially interfere with some dentin bonding mechanisms.³</p> <ul style="list-style-type: none"> 1. Boston DW & Liao J. Op Dent 2004; 29:280-6. 2. Hararli OT, et al. J Rest Dent 2014; 2(1):20-26. 3. Demarco FF, et al. Op Dent 1998; 23:294-298.
<p>6. Nebraska - Yes, it is optional and not frequently used.</p> <ul style="list-style-type: none"> iii. CRDTS does allow the use of detecting solutions, but from what I have heard from examiners in our college, they have never seen it used iv. Sable™Seek® (Ultradent)
<p>7. SIU Yes</p> <ul style="list-style-type: none"> ii. Optional iii. Optional but recommended against iv. Sable Seek, green, by Ultradent
<p>8. UMKC It is available but rarely used</p> <ul style="list-style-type: none"> i. Faculty preference, not a big part of didactic curriculum ii. Optional iii. Optional (rarely used) iv. Sable Seek (Ultradent)

Does your school use any caries detection devices as part of the clinical protocol?

1. AT Still - No
2. Colorado - No
3. Creighton - No; however, a few of us in the GD department are pursuing the testing of the Dexis CariVu, either through loan or donation from the company
4. Iowa - NO
<p>5. Minnesota</p> <p>We use magnification (loupes), trans-illumination (operatory light or head lamp with mirror), radiographs, and a sharp explorer.</p> <p>The explorer, however, is used in a particular manner. The explorer is held in a light pen-grasp, with the tip at a right angle to the surface being assessed. The tip is gently moved from side-to-side feeling the amount of drag created as the tip scrapes across the dentin surface. The consistency of the dentin is the primary mode for diagnosing active caries. Dentin consistency is never assessed by poking the explorer into the dentin as this creates damage to the tissue and risks creating a pulpal exposure. Also holding the explorer too firmly decreases tactile sensitivity. Diagnosing pits and fissures as “cariou” is done</p>

visually and with radiographs—retention or “sticking” of a sharp explorer in these invaginated features is not a sign of dental caries. We own a KaVo Diagnodent but we do not use it in the predoc clinics. Studies have indicated fairly high levels of false positives when diagnosing pit & fissure caries, which leads to more aggressive treatment. ¹ Also, using this device along with visual and radiographic examination does not add appreciably to the diagnostic yield over the visual and radiographic methods alone. ² 1. Diniz MB, et al. JADA 2012; 143:339-350 2. Rodrigues JA, et al. Caries Res 2008; 42:297-304.
6. Nebraska - Yes and no i. Diagnodent made by Kavo. I don't think it is available any longer. Replaced by Diagnocam? Diagnodent was mostly used by our hygiene department.
7. SIU NO
8. UMKC YES i. Diagnodent (used only in Innovation Center) ii. Used only in Innovation Center with specific faculty

Materials and Techniques

Isolation:

If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?

1. If yes, please describe.

1. AT Still Isovac – used in cases where rubber dam isolation is unachievable Cotton roll isolation – case-by-case basis
2. Colorado - Rubber dam is always first choice. No specific protocol when rubber dam can't be used. 1. Given situations they also can use Isolite, Optragate, cord, cotton rolls.
3. Creighton - We have moved away from the traditional rubber dam because of the risk of allergic reactions, and instead have adopted the derma dam by Ultradent. Derma dams are always encouraged. The instructor often can place a dam even if the student cannot. The student and/or patient must have a very good reason to not use the dam. If absolutely unfeasible, IsoVacs or Optragates with cotton rolls/DriAngles are available for isolation.
4. Iowa Yes. The following materials and techniques are available and indicated in the clinics. LIP AND CHEEK RETRACTORS Lip and cheek retractors (eg. Optragate, Expandex) are viable alternative methods of isolation when a rubber dam is not possible. These are used most often for isolation in the maxillary anterior segment. The use of cotton rolls under the maxillary lip in addition to the retractors adds lip retraction and supplemental isolation. Use of a gauze on the lingual aspect of the maxillary anteriors helps to keep the tongue away from preps during bonding and restoration. COTTON AND COTTON ROLL HOLDERS: Isoshields and cotton rolls may be used when a rubber dam or lip and cheek retractors are not possible. The appropriate size isoshield will adhere to the buccal mucosa, absorbing fluids and not impinge on the depth of the vestibule. Cotton roll placement on the buccal and lingual during restoration placement aids in maintaining a dry field. Cotton roll holders are an adjunctive means of field control. They can be added to help hold cotton rolls in place during restoration Saliva evacuation placement in the distal portion of the treatment segment is advantageous to remove moisture from the field. ADDITIONAL ADIS TO FIELD CONTROL:

Isolite is an excellent adjunct to field control when rubber dam placement is not possible. Use of this technique is limited in our clinics due to lack of availability.
 Hygroformic saliva evacuation is helpful in positioning the saliva evacuator to remain in place and remove moisture more effectively.
 Retraction cord and hemostatic agents – note that hemostatic agents may negatively affect adhesive bonding to tooth structure.

5. Minnesota
 The University of Minnesota School of Dentistry clinics are latex free. We use only non-latex dental dam. Hence we no longer use the term rubber dam but prefer dental dam. We do teach alternatives to dental dam isolation. The one exception is the competency exam. On this exam a dental dam must be used. Isovac [Isolite Systems] is a high volume suction attachment that includes flanges for retracting cheeks and tongue and a bite block. These isolation devices are widely used in the clinic as an alternative to dental dam.
 Other ancillary isolation devices include: Cotton rolls, cotton roll holders, and low volume suction; Dri-angles (stiff flat cotton triangle for covering buccal mucosa); Hygroformic (spiral-shaped low volume suction device for retracting tongue and floor of mouth); High volume suction (requires an assistant)

6. Nebraska
 Yes
 1. We utilize “Mr. Thirsty” or an assistant in some situations.

7. SIU
 a. Method of isolation is left up to the faculty overseeing the procedure – no definitive protocol is in place
 b. Option of Mr. Thirsty (off brand of Isolite device) otherwise standard cotton rolls and dry angles

8. UMKC
 FOUR HANDED DENTISTRY- ASSISTANT, ISOVAC (students must obtain faculty permission), cotton rolls, parotid shields

Adhesives:

How many composite bonding systems do you have in your pre-doctoral clinic?

1. List each system by classification, product name, and manufacturer:
 - a. 5th generation – Two-step Etch-Rinse
 - i. Etch. Rinse. (Prime+Bond).
 1. e.g. – Prime & Bond (Dentsply)

1. AT Still 1 system
 1. Optibond Solo Plus unidose packets, Total Etch [by Kerr]

2. Colorado - Only one, 4th Generation, Optibond FL.
 a. 4th generation – Three-step Etch-Rinse
 i. Etch. Rinse. Prime. Bond.
 1. e.g. – Optibond (Kerr) Optibond FL

3. Creighton - Two
 a 5th generation – Two-step Etch-Rinse Yes
 1 Prime & Bond NT (Dentsply)
 a 8th generation – One-step Self-etch Yes
 1 Peak Universal Bond (Ultradent)—used with Ultradent Unicore and Fiber post system

4. Iowa
 a. 4th generation – Three-step Etch-Rinse
 i. Etch. Rinse. Prime. Bond.
 1. Optibond (Kerr)

5. Minnesota
 a. 4th generation – Three-step Etch-Rinse
 i. Etch. Rinse. Prime. Bond.
 1. e.g. – Optibond (Kerr)
 b. 5th generation – Two-step Etch-Rinse

- i. Etch. Rinse. (Prime+Bond).
- 1. e.g. – Prime & Bond (Dentsply)
- c. 6th generation – Two-step Self-etch
- i. (Etch+Prime). Bond.
- 1. e.g. – Clearfil SE (Kuraray)
- d. 7th generation – One-step Self-etch
- i. (Etch+Prime+Bond).
- 1. e.g. – Prompt L Pop (3M ESPE)
- e. 8th generation – One-step Self-etch
- i. (Etch+Prime+Bond).
- 1. e.g. – Futura bond DC (VOCO America)

The idea of “generations” for composite resin and adhesives is a marketing gimmick and not scientific terminology. A more descriptive way to categorize adhesives is by technique: 3-step etch & rinse; 2-step etch & rinse; 2-step self-etch; and 1-step self-etch. We use Adper Single Bond Plus (3M Oral Care) for nearly all composite restorations. It is classified as 2-step etch & rinse. Scotchbond Universal Adhesive (3M Oral Care) is used for some composite resin restorations (used as a 2-step etch & rinse), and with dual cure core build-up materials (used as 1-step self-etch).

6. Nebraska

We are currently using only a 4th generation product. PermaQuick® (Ultradent)

7. SIU

5th generation, Optibond Solo Plus, Kerr

8. UMKC

PEAK BY ULTRADENT, ADHESE UNIVERSAL BY IVOCLAR with regular composites, we do teach etching prior to bond

Are your students and faculty provided with specific indications and guidelines for their use? If Yes, please provide the indications and guidelines.

1. AT Still - NO

2. Colorado - YES

3. Creighton - Yes. Students receive specific instructions in the use of these products in the pre-clinical labs and lectures. If a product changes, students receive updates in their D3 or D4 lecture classes or via email, PowerPoint slides, or chairside

Prime & Bond (Dentsply/Sirona): INDICATIONS (from website)

- 1. Direct composite and compomer restorations.
- 2. Veneers.
- 3. Composite, ceramic and metal repairs.
- 4. Cavity varnish for use with fresh amalgam.

- Prime & Bond Guidelines (from Creighton SoD)

- 1. Etch with Ultradent 37% Ultraetch 10 sec on dentin, up to 15 secs on enamel. Rinse thoroughly, leave damp (blot or HVE suction).
- 2. Apply 2% Ultradent Consepsis x 30 secs. Leave damp (blot or HVE suction).
- 3. Apply Prime and Bond NT x 20 secs. Use several applications for large preparations. Air thin 5 secs (make sure there is no pooling). Cure for 10 secs.

Peak Universal Bond (Ultradent): INDICATIONS (from website)

- 1. “Use Peak Universal for all your etching and bonding needs in restorative dentistry.”
- 2. Students are provided a laminated instruction card and the assistance of a dental assistant when using this product in the clinic as it is used only with the Unicore Fiber Post and Buildup system (and only in the GD dept).

4. Iowa

a. Yes. Trainings include exercises using dentoforms with plastic and natural extracted teeth. Also, a step-by-step video of a clinical scenario showing the application of the material is available for the students. Additionally, pre-doctoral students have one exercise in simulation clinic dedicated to test the bond strength of resin composite to tooth structure using shear test.

5. Minnesota

N/A

6. Nebraska

7. SIU Yes

- i. Indications: bonding composite to enamel, dentin or composite
- ii. Direct Bonding with OptiBond Solo Plus (directly from manufacturer)
 - 1. Etch enamel and dentin for 15 seconds with 37.5% Phosphoric acid etch.* Rinse thoroughly, ensuring that all etch is removed.
 - 2. Dry lightly (do not desiccate).
 - 3. Apply OptiBond Solo Plus to enamel/dentin surface with applicator tip for 15 seconds, using light brushing motion.
 - 4. Air thin for 3 seconds.
 - 5. Light cure for 20 seconds.†
 - 6. Place composite and light cure.†

8. UMKC

NO

Light Curing

- i. When light curing is taught in the curriculum and how much time is devoted to the topic?
- ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit?
- iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own?
- iv. What specific curing light(s) do you have available?
 - 1. Please list name(s) and manufacturer(s)
- v. What protocols are in place to ensure the proper use of your light curing system(s)?
- vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)?

1. AT Still

- i. Operative II Course – one lecture, one demonstration
- ii Provided in the simulation lab
- iii Provided in the clinic
- iv Colt lux LED [by Coltene]
- v No specific protocol
- vi Bi-annual testing/evaluation by 3M representative

2. Colorado

- i. Curing lights are covered in Dental material's course as well as Operative Dentistry. In Operative Dentistry, 1st year dental students have one hour on curing lights, and those are also covered when going over composite resin placement.
- ii They are provided both clinic and pre-clinic.
- iii
- iv VALO LED Curing lights - Ultradent Products, Inc. VALO LED Curing lights.

- v We have the same curing lights in Sim Clinic as well as Clinic. There are no different protocol then the guide from the company how to use the light. And our maintenance staff are responsible for checking the lights.
- vi Our maintenance staff are responsible for checking the lights. the maintenance that they perform every 6 months on clinical chairs are:
 - Verify Serial Number.
 - Check overall condition.
 - Verify that when light is off there is no dim blue light remaining on.
 - Check that the light cord is secured properly and that the cord is routed correctly.
 - Verify the orange lens is on the light.
 - Check function of the light and verify that all three functions work correctly. Verify that in each function that each setting works correctly accordingly to that setting (i.e. run time, output and audible sound).

3. Creighton

- D1 students in Introduction to Operative Lecture; 30 minutes
- D2 students in Sophomore Operative Dentistry Lecture; 30 minutes devoted to review proper light curing, safety, and different types of lights (i.e. halogen, LED)
- D3 students in Junior Operative Lecture; 30 minutes
- ii. Provided
- iii. Provided
- iv. D1/D2 preclinical lab: SmartLite Focus, Pen-Style LED Curing Light (Dentsply/Sirona) – each individual issued for the school year.
D3/D4 Clinic: VALO LED (Ultradent) – checked out for clinic use prn.
- v. Reviewed during D-1, D-2, and D-3 lectures and during clinical procedures
- vi. In clinic, the assistants in dispensing/sterilization maintain the lights. We have the CheckMARC equipment for research purposes to check the output of polymerization lights; however, have not employed for periodic checks of clinical lights.

4. Iowa

- i. Light curing is taught throughout the entire Operative Dentistry curriculum and divided in the first three years as follows:
 - 1st year: Lecture (50 min)
 - 2nd year: Lecture (30 min) and patient simulator (MARC-PS, BlueLight Analytics) exercise (30 min)
 - 3rd year: Dental Materials seminars (30 min) + patient simulator (MARC-PS, BlueLight Analytics) exercise (30 min)
- ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit?
Curing lights are provided in the pre-clinical simulation by the College of Dentistry.
- iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own?
Curing lights are provided in the pre-clinical simulation by the College of Dentistry.
- iv. Demetron LC, Kerr
Valo Corded, Ultradent Products, Inc.
Valo Grand, Ultradent Products, Inc.
- v. The protocols in place are based on the Dalhousie Light Curing Symposium May 2014 comments published in Journal of Adhesive Dentistry, Dental Materials, Operative Dentistry, and the Journal of the Canadian Dental Association, and are described as follows.
Light Curing – Guidelines for Practitioners
A Consensus Statement from the 2014 Symposium on
Light Curing in Dentistry held at Dalhousie University, Halifax, Canada*
 - Recognize that all lights are not created equal. Use a LCU from a manufacturer who provides contact information, a user manual, and service. Preferably the LCU should have received a favorable report or certification from a reputable independent 3rd party.
 - Know the key performance parameters of your LCU (when new), the light output (averaged irradiance over the beam incident area in mW/cm² and spectral output from the LCU), (ii) whether the

beam has a uniform and effective output (profile) across the light tip, and (iii) the diameter of the light beam.

- Be cautious when using high (above 1,500 to 2,000 mW/cm²) output LCUs that advocate very short (e.g. 1 to 5 seconds) exposure times. When used for such short times, it is critical that the light tip is stabilized over the resin during exposure. Although some resin composites are matched to specific high output curing lights, high output LCUs may not adequately cure all of today's resin-composites to the anticipated depth when used for short exposure times. Seek peer-reviewed literature validating the efficacy and safety of such lights and materials.

Before you light cure, remember to:

- Regularly monitor and record the light output over time, with the same measurement device and light guide. Repair or replace the LCU when it no longer meets the manufacturer's specifications.
- Inspect and clean the LCU before use to ensure it is on the correct setting, in good working order, and free of defects and debris.
- Consider that every resin-based material has a minimum amount of energy (radiant exposure) that must be provided at the correct wavelengths to achieve satisfactory results. . However, minimum irradiation times are also required, that is, do not cure less than 10 seconds per time.
- Follow the light exposure times and increment thickness recommended by the resin manufacturer, making allowances if you use another manufacturer's light. Increase your curing times for increased distances and darker or opaque shades.
- Select a LCU tip that delivers a uniform light output across the light tip and that covers as much of the restoration as possible. Cure each surface independently, using overlapping exposures if the light tip is smaller than the restoration.
- Position the light tip as close as possible (without touching) and parallel to the surface of the resin composite being cured.
- Stabilize and maintain the tip of the LCU over the resin composite throughout the exposure.
- Always use the appropriate "blue blocking" glasses or shield to protect your eyes as you watch what you are doing with the curing light.

Precautions:

- Avoid conditions that will reduce light delivery to the resin-composite, e.g.:
- Holding the light tip several millimeters away.
- Holding the light tip at an angle to the resin surface.
- Dirty or damaged light-guide optics.
- Supplementary light exposures should be considered under circumstances that may limit ideal light access, such as shadows from matrix bands, intervening tooth structure, or from restorative material.
- Beware of thermal damage potential to the pulp and soft tissues when delivering high energy exposures or long exposure times.
- Air-cool the tooth when exposing for longer times, or when using high output LCUs.
- Never shine the LCU into the eyes, and avoid looking at the reflected light, except through an appropriate 'blue-blocking' filter.
- Testing surface hardness of the resin-composite in the tooth using a dental explorer provides NO information about adequacy of curing depth.

vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)? All light curing units are periodically checked by the pre-doctoral students before and during exercises in simulation clinic and clinic and by a trained maintenance staff using checkMARC (BlueLight Analytics) Measurements are done using same light cure mode and time of exposure. Radiant exposure (J/cm²) at 0 and 6 mm are recorded on a sticker placed on every light curing unit.

5. Minnesota

i. The theory is taught in the Biomaterials course that runs parallel to the Operative Dentistry preclinical courses. The technique is taught in Operative Dentistry I lecture. A portion of the first lecture on

composite resin placement (the Class V restoration) is dedicated to light curing technique, parameters, and safety. Subsequent lectures on other types of composite resin restorations continue the theme.

ii. Provided (hard wired to unit).

iii.

iv. The QHL75 Halogen Curing Light (Dentsply) is hardwired to the dental units throughout most of the predoc clinics. The preclinical labs have Mini LED OEM Curing Lights (Dental EZ) hardwired to the dental units. As halogen lights are retired in the clinic, they are being replaced with the Mini LED style lights.

v. Faculty oversight.

vi. Annual testing.

6. Nebraska

i. Light-curing is first introduced in the Dental Materials and Techniques course the first semester of the D-1 year. It is discussed in the didactic portion of the course and light-curing is done in the laboratory. It is reviewed and technique is stressed in the Operative I and II courses.

ii. The lights are provided by the college.

iii. Again, they are provided by the college.

iv. Velo® (Ultradent) the most common one in our labs and clinic we also have a few SmartLite Focus Pen (Dentsply Sirona) that are used in our clinics.

v.

vi. The lights are inspected for any damage that may be present after each use by our instrument sterilization and management staff. The lights are also tested for light output on an annual basis. So far light output has not been an issue.

7. SIU

i. D1, semester 1, Operative I, anterior composite restoration lecture – light curing is small portion of this lecture

ii. Provided

iii. Provided

iv. a. Pre-clinically

i. Demi Ultra by Kerr

ii. Colt lux 75 by Coltene Whaledent

b. Clinically

i. Satelec Mini LED by Acteon

v. Students use light curing systems while learning how to perform composite restorations in the pre-clinical simulation lab. They are instructed on their use through the lectures pertaining to the composite restorations. No protocol is established beyond the application of their use.

vi. The technical services department inspects the clinical curing lights function and output with a meter and cleans the bulb and/or LED diodes on a monthly basis and also during clinical break times.

8. UMKC

i. OPERATIVE II LECTURE AND LAB

ii. YES- they share in lab

iii. PROVIDED- checked out from dispensary

iv. HALOGEN LIGHT IN PRECLINIC, ULTRADENT VALO LIGHT IN CLINIC

v. NA

vi. Dispensary maintains

Student Assessment

Does your school have applicants to your four-year DDS program participate in bench testing prior to admission?

i. If Yes, describe what is required of the applicant.

1. AT Still – No
2. Colorado - No, bench testing is only for International Student's admission.
3. Creighton - NO
4. Iowa NO
5. Minnesota No, for the DDS program. However, applicants to the dental therapy program and the program for advanced standing students (PASS) do prepare a cavity preparation on the DentSim.
6. Nebraska NO
7. SIU NO
8. UMKC NO

What is your department policy for remediation should a student fail a didactic course or a laboratory course?

(i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)

- i Are all students who fail eligible for remediation?
 - 1. If No, what circumstances would not allow remediation?
- ii Do all students eventually pass remediation? To date
 - 1. If No, what happens to them?
- iii How do you remediate students who fail the didactic program?
- iv How do you remediate students who fail the laboratory simulation program?

<p>1. AT Still</p> <p>b. 1st Failure: successful remediation of practical examination 2nd Failure: successful remediation of the course</p> <p>Remediation plans are initially set by the course director, then submitted to the Academic Progress Committee for approval. The APC then formally contacts the student and instructs him/her on the approved remediation plan.</p> <p>In the case of Course Failure, the student is referred to the Learning Center for learning assessment/advising and counseling through the University. In special circumstances, non-University counseling may be provided.</p> <ul style="list-style-type: none">i Yesii Yesiii At the discretion of the Academic Progress Committee and subsequent approval/disapproval of the Dean.iv At the discretion of the Academic Progress Committee – custom-tailored remediation plan is voted and agreed upon and submitted to the Dean for approval.
<p>2. Colorado</p> <p>Remediation is on individual bases. The remediation plan is submitted to Student Performance Committee. If didactic course, new written exam is given. If it is sim clinic course, student repeats the practical examinations.</p> <ul style="list-style-type: none">i. Yes, exception if they are already on probation.ii. Not always.<ul style="list-style-type: none">1. They repeat the year.iii. Given them time to work on course material, we provide tutor and give them new written exam.

- iv. They are provided with tutor and they work with course directors. All remediation practical's need to be done within the time frame.

3. Creighton –

This is on a case-by-case basis and tailored to the student. Usually the failing grade stays on the permanent record and a retake course is offered. For example, student receives “F” for GDO 314, the grade remains on record. GDO 314R is offered, and another permanent grade goes on the record.

i. No

- If a student fails multiple didactic and lab courses in a semester. They may have to leave the program or repeat a year.

ii. No

- Case-by-case. See answer above. Would be discussed at department level and student performance committee level.

iii. Didactically, remediation would likely involve a new exam or oral exam at the instructor's discretion. Some students remediate D1 Dental Anatomy in the summer after their D1 year. They individually work with the instructor and take a new final exam at the end of their time. They cannot receive a final grade higher than a D if remediation takes place.

iv. One occurrence of failure of the first semester of the sophomore operative lab resulted in the student remaining in class and continuing to the second semester but remediating all projects from the first semester between the end of 2nd semester and summer session. The student was required to do all steps on the project cards and work only with full-time faculty who are associated with this particular lab. He was to do this on his own time. If he had passing grades on these projects and the instructors saw improvement, he was to pass and continue into clinical care.

4. Iowa Generally, the Course Director works with the student and the Dean of Student Affairs to develop an individualized remediation plan.

i. YES

ii. NO

1. The outcome is dependent on the individual but in some cases, students are dismissed from the College.

iii. For the Operative I Course - For didactic there is no remediation. If they do not get more than 70% on the didactic exams they fail, the course and must repeat the year. For junior operative clinic, they must pass a pre-test before seeing patients. And, if the student fails it they are given 2-3 days to study and take another pre-test.

iv. The students have retake practical 7- 10 days after the exam. If a student fails three retakes in a year, they must repeat the year. And if the student fails three out of the five practical exams, they fail the course as well and must repeat the year.

5. Minnesota

Syllabus wording: “A failing grade in the Lecture course will require re-registration, remedial course work and re-examination. A failing grade in the Laboratory course will require repeating the course the following year with permission of the course director and the Scholastic Standing Committee. All student failures are reviewed by the Scholastic Standing Committee and the ultimate decision for remediation for students in academic difficulty lies with that committee.”

i. Decisions on remediation are made through the Scholastic Standing Committee. It is possible that student performance in other courses could affect the decision whether or not to permit remediation or recommend dismissal.

ii. It is uncommon that a student cannot be remediated. Remediation plans generally include some discussion about the consequences of failing to successfully complete the remediation plan. These consequences are worked out beforehand with the Scholastic Standing Committee. Consequences could include further remediation, having to retake the course at its next offering, or dismissal from the program.

iii. A remediation plan is developed tailored to the student and the reasons for failure in the course. For example, one student failed the final exam and this resulted in failure of the didactic course. The student was required to study and retake the final exam in an oral format.

iv. We try to make failure in these courses uncommon by early intervention. Students having difficulty are identified early and can opt into a student mentor program. If a student fails a laboratory course, a remediation plan is developed tailored to the student and the reasons for failure in the course. Failure of a laboratory course would most likely involve failure of practical exams. A remediation plan would likely involve additional practice and re-examination. Operative Dentistry III is the gateway course into clinic. Practical exams are the sole method for grading in this course, and so failure will involve failure of practical exams. In this course, students are allowed to retake a failed practical exam one time. With two failures, the student is required to perform five similar procedures to clinically acceptable quality (as judged by the course director) prior to challenging the exam again.

6. Nebraska

7. SIU

Course failures require course remediation as determined by the course director

- i. If SPAC (student promotion and awards committee) determines it would not be in the students best interest to remediate (i.e. too much to handle, personal issues brought forth by the student, etc.)
- ii. a. Repeat the academic year
b. dismissal
- iii. Remedial work (often multiple meetings with the course director to review) followed by re-examination as determined by the course director
- iv. Remedial work (often repeating most if not all of the laboratory projects) followed by re-examination as determined by the course director.

8. UMKC POSSIBLE REMEDIATION OF COURSE

“The failure of any course (receiving a grade of F or No Credit) will necessitate additional work to remove or replace the F or No Credit. This will consist of repeating the course the next time it is offered at the School of Dentistry or completion of a remediation plan. The course of action that is offered a student will be determined by the Academic Affairs Dean in consultation with the course director. A failure or No Credit in the remediated or repeated course/s will result in dismissal from the program. For additional detail, please refer to the Student or Faculty Handbooks.”

- i. NO
1. MULTIPLE FAILURES IN MULTIPLE CLASSES/DISMISSAL FROM SCHOOL
- ii. YES
- iii. DEPENDS ON THE CLASS- may repeat entire year, may allow back in “on probation”
- iv. ONE ON ONE WORK AND RETEST

How do clinical procedures get evaluated? (pass/fail, grading scale, etc.)
Do you use a clinical evaluation (grading) system that is integrated with axiUm?
1. If Yes, please describe.
2. If No, what system do you use to collect the data?

1. AT Still

Grading Scale – 0-5

Assessment Categories:

- Patient Management**
- Procedure Management**
- Clinical Skills**
- Knowledge**
- Professionalism**
- Self-Assessment**

Summary Score – Acceptable, Improvable, Unacceptable

**Table 1
Clinical Evaluation Rubric:
Scoring of Essential Experiences & Competency Examinations**

Score	Description	Summary Score
5	Excellent. Exceeds the technical/clinical criteria (without instructor assistance). Competency is achieved.	A-Acceptable
4	Very Good. Fulfills the technical/clinical criteria (without instructor assistance). Competency is achieved. This level of work (or above) is required for predoctoral students prior to graduation.	A-Acceptable
3	Average. Fulfills technical/clinical criteria (with minimal instructor assistance). Competency is not achieved (fail).	I-Improvable
2	Below average. Fulfills technical/clinical criteria (with instructor assistance). Competency is not achieved.	U-Unacceptable
1	Poor quality. Fulfills technical/clinical criteria (with significant instructor intervention). Competency is not achieved.	U-Unacceptable
0	*Critical Error. Procedural issue(s) that had the potential to cause injury or damage to the patient, operator or others and likely warranted intervention by the faculty member.	U-Unacceptable

**Examples of Critical Errors: extraction of wrong tooth, preparation of wrong surfaces of teeth, lack of rubber dam during endodontic procedures, inadequate pain control, failure to update the medical history, inadequate/improper PPE, lack of informed consent, violation of law, failure to utilize safety precautions, treatment that deviates from the accepted standard of care, etc.*

Critical Errors: Score of 0

The potential for critical errors exists during ALL Essential Experiences, Progress Exams and Competency Exams. While it is not possible to enumerate all potential errors, those falling under the umbrella of Patient/Operator Safety, guide faculty in determining when a critical error has occurred. MOSDOH defines Patient/Operator Safety critical errors as follows: **those procedural issues that have the potential to cause injury or damage to patient, operator or others and warrants interruption/termination of the procedure.** The supervising faculty member immediately takes responsibility for managing the situation. Examples include, but are not limited to, **extraction of the wrong tooth, preparation of the wrong tooth surfaces, lack of a rubber dam during endodontic procedures, inadequate pain control, failure to update the medical history, inadequate/improper PPE, any treatment that deviates from the accepted standard of care, lack of informed consent, etc.** The management of critical errors is discussed with the student, recorded in the Clinical Assessment System (CAS) as a score of "0", with a comment. **Students who earn more than one critical error in a semester will be referred to the Academic Progress Committee for review as well as supports, if appropriate.**

**Table 2
Scoring Rubrics for Professionalism, Knowledge, Patient Management, Procedure Management & Self-Assessment: Scoring of Essential Experiences & Competency Examinations**

Score	Category	Description	Summary Score
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4-5	Patient Management	Thorough, comprehensive understanding of patient needs, wants, fears, concerns, pain management.	A-Acceptable
	Procedure Management	Consistently manages the entire procedure in an efficient, orderly, timely and safe manner.	
	Clinical Skills	Fulfills the required technical/clinical criteria	
	Knowledge	Can articulate and apply concepts of evidence-based dentistry to the specific patient/procedure; is able to critically think and problem solve; appropriately and accurately integrates biomedical science principles into patient care. Able to describe rationale for selecting one procedure over another and/or able to select alternative approaches to care.	
	Professionalism	Throughout the entire procedure, displays a respectful, caring professional manner. Has a confident, independent skill set. Willingly accepts instruction.	
	Self-Assessment	Able to accurately self-assess own performance.	
3	Patient Management	Incomplete understanding of patient needs, wants, fears, concerns and/or pain management.	I-Improvable
	Procedure Management	Inconsistently manages the procedure efficiently and safely.	
	Clinical Skills	Fulfills the required technical/clinical criteria	
	Knowledge	Incomplete understanding of evidence-based dentistry principles associated with the specific patient/procedures; and/or needs faculty direction to solve problems; and/or incomplete understanding of biomedical science principles associated with the care of the patient. Inconsistent in describing or unsure of rationale for selecting one procedure over another and/or selection of alternative approaches to care.	
	Professionalism	Inconsistently displays a professional manner. Somewhat receptive to instruction. Cultivating a confident and independent skill set requiring minimal faculty direction.	
	Self-Assessment	Minor inaccuracies in self-assessment of own performance.	
0 – 2	Patient Management	Lacks understanding of patient needs, wants, fears, concerns and/or pain management.	U-Unacceptable
	Procedure Management	Inefficient, disorderly and/or unsafe time and procedure management.	
	Clinical Skills	Does not fulfill the required technical/clinical criteria	

	Knowledge	Lacks understanding of evidence-based dentistry principles associated with the specific patient/procedures; and/or requires faculty intervention to solve problems; and/or is unable to accurately apply biomedical science principles associated with the care of the patient. Inaccurate in or unable to describe rationale for selecting one procedure over another and/or selection of alternative approaches to care.	
	Professionalism	Does not display a professional manner. Lacks confidence. Dependent skill set requiring faculty intervention. Visibly resistant to instruction.	
	Self-Assessment	Unable to accurately self-assess own performance.	

2. Colorado - Daily evaluations are done after every clinic session.

3. Creighton - Grading scale 1-4 in clinic. 4 being the best. Can give grades in increments of 0.5 as well.

4. Iowa

YES. The Operative Learning Guide for D2 and D3 are attached.

5. Minnesota

Yes, for general Operative treatment. No, for Competency Exams.

1. General Operative treatment is evaluated using the grading module in AxiUm.

Three evaluation points are employed per restoration:

1) Preparation Completion (Preparation Quality Assessment)

2) Restoration Completion (Restoration Quality Assessment)

3) Patient Encounter Completion (Treatment Skills Assessment)

The “treatment skills” being assessed in the third evaluation point includes: preparedness for clinic, awareness of medical conditions, instrument selection, neatness, infection control, quality of presentation to instructor, patient-operator positioning, local anesthesia, isolation, time management, and professionalism.

Each Assessment 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

2. Competency Exams are not currently integrated into AxiUm. The main reason for this is that we use two examiners to independently evaluate the student’s work, and a third may be used if there is significant disagreement. This duplicate evaluation is not accommodated in AxiUm.

Competency exams are scored on paper forms and entered into a digital spreadsheet by the Division support staff. The preparation and restoration quality on a competency exam are evaluated according to the same criteria-referenced evaluation scheme used in the pre-clinical simulation clinics. There are three possible grades: N, S, or M/E.

N = No Modification Necessary—Range of Excellence. The preparation or restoration is of satisfactory quality and is expected to protect the tooth and the surrounding tissue.

S = Slight Modification Necessary—Range of Acceptability. The preparation or restoration is of acceptable quality but exhibits one or more features which deviate from the ideal.

M = Moderate Modification Necessary— E = Extreme Modification Necessary. The preparation or restoration is not of acceptable quality. Future damage to the tooth and/or its surrounding tissues is likely to occur or has already occurred.
The grade for the competency exam is the lowest grade received on any of the measured preparation or restoration evaluation criteria. An “M/E” grade on any evaluation criteria results in a failure of the competency exam.

6. Nebraska

7. SIU
grading scale of 5-optimal, 4-acceptable, 3-marginally acceptable, 2-unacceptable, moderate, 1-unacceptable, severe
i. Software called 4D Odontobytes written and maintained by our dean of information technology

8. UMKC SORT OF
1. Optional daily faculty grades- required for truly exceptional encounters (exceptional either good or bad)

Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?

- i. If Yes, how long is the specified time for the following:
 - 1. Class II amalgam
 - 2. Class II composite
 - 3. Full crown preparation
- ii. If Yes, is there an assessment at the end of the specified time?
 - 1. If Yes, is this assessment a factor in the project or course grade?
- iii. If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?

1. AT Still
a. Only in the Clinical Readiness course

- 1 3 hrs.
- 2 3 hrs.
- 3 3.5 hrs.

ii
iii Closer to entering the clinic

2. Colorado - On clinic floor student has 2 and ½ hours to see the patients. The time for sim- clinic is given bellow.
1. We have 3 hours and 15 min for two Class II amalgam Preparations, one Class II amalgam Restoration and one composite buildup.
2. Class II composite We have 3 hours for two Class II composite Preparations, one Class II composite Restoration, two Class I amalgam preparations and one Class I amalgam restoration.
3. Full crown preparation Two hours for crown preparation.
ii. Projects are graded separate session.

- 1. Yes, practical examinations are about 80% of their lab course grade.

iii. When the student does their first preparations/restorations or closer to entering the clinic? Students start to see patients DS2 Spring Semester. They start with transition clinic, then comprehensive care clinic till they graduate.

3. Creighton - No, students work at their own pace and have a set of project cards they continue working on during official lab time. Practical lab exams have specified times.
i. Class II amalgam. Practicals: 1 hour for prep, 1 hour for restoration, 45 min for polish
Class II composite. Practicals: 1 hour prep, 1 hour restore/polish

Full crown preparation. GD does not conduct practical exams for crown preps; Fixed Pros does.

ii. If Yes, is there an assessment at the end of the specified time?

• If Yes, is this assessment a factor in the project or course grade?

Self-assessment takes place periodically throughout the semester.

iii. If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?

4. Iowa

In the D1 year, assignments each have a specific length. In the D2 year, pre-clinical assignments are all given at the beginning of the semester and due at the end of the semester.

i. (all for D1)

1. Class II amalgam 3 hours for one preparation and one restoration

2. Class II composite 3 hours for one preparation and one restoration

3. Full crown preparation N/A

ii. Yes

1. Yes

iii. In the D1 year this time requirement starts during their pre-clinical exercises.

5. Minnesota

Individual projects (i.e., preparations and restorations) do not have specified times.

Control of student pacing is with deadlines.

6. Nebraska

7. SIU

Yes, but only in the sense of a due date of the next lab session

i.

ii. Yes

1. Yes, daily grades count towards 15% of the overall lab grade

iii. Evaluations on time efficiency take place in Operative II, D2's semester 2 (the semester before they are assigned patients in the clinic). The students 4 timed exercises:

1. Rubber dam placement, organization and PPE (15 minutes)

2. Rubber dam, organization, PPE, class II amalgam preparation and matrix band set up (1 hour)

3. Rubber dam, organization, PPE, class II composite preparation, , sectional matrix band set up (1 hour)

4. axiUm, rubber dam, organization, PPE, class II composite preparation, sectional matrix band set up, class II composite restoration (1 and ½ hour)

8. UMKC

GRADED DURING THE LECTURE THE FOLLOWING WEEK. The work can be done in lab or as homework

ii. Each prep/restoration is graded before lab begins the following week

iii. Homework is assigned by faculty during lab period

How many times do you assess your students for a particular operative procedure (i.e., CI II composite) after they have taken the course teaching that procedure?

- i. How is it assessed (manikin vs. live patient)?
- ii. When do these assessments occur?

1. AT Still

- i. Students must successfully pass manikin/typodont simulation exercises in the clinic prior to treating patients.
 - Failure to pass a simulation exercise requires remediation.
 - Failure to pass the remediation results in failure of the course required to officially enter clinic and treat patients.
 - Individual student cases are brought before the Academic Progress Committee, and the decision to either repeat the year or customize a course remediation plan is made.
- ii Between D2 and D3 year

2. Colorado - Yes, full time faculty can practice one day a week.

- i. It is case based. Some students need quiet environment to take the exam, some need more time (eg. Double time). For simulation clinic, we had student who was allowed to listen to music during the practical and not seat in the middle of the classroom.
- ii. Currently we have 6 students in DS1 class. In 2017 we had 6 students, 2016 we had 3.
- iii. The course directors are notified for the student accommodations. The Disability Office does not share the reason for student's disability with us. All students do go through process to confirm their disabilities.
- iv. The University of Colorado Denver is and educational institution that welcomes and supports a diverse student body. The Disability Resources and Services Office is the designated office that maintains disability-related records, determines eligibility for academic accommodations, determines reasonable accommodations and develops plans for the provision of such accommodations for students attending the university. It is the policy of our institution of higher education not to discriminate against persons with disabilities in admissions policies and procedures or educational programs, services and activities.

3. Creighton –

- D-3 year
 - o Junior Clinical Competency Exam
 - Pt-based, Class II and Class III in one day
 - Must pass procedures to advance to senior year
 - D-4 year
 - o Special Class II Clinic
 - Pt-based, completed in one afternoon
 - Not required to pass exam to advance to graduation
 - o Special Class III Clinic
 - Pt-based, completed in one afternoon
 - Not required to pass exam to advance to graduation
 - o Senior Mock Board Exam
 - Pt-based, Class II and Class III in one day
 - Must pass to be eligible for Regional Licensure Board Exam and to advance to graduation
- i. How is it assessed (manikin vs. live patient)? Live patient
- ii. When do these assessments occur?
 - D-3 year
 - o Junior Clinical Competency Exam
 - February
 - D-4 year
 - o Special Class II Clinic
 - June & July
 - o Special Class III Clinic
 - August, September, October

o Senior Mock Board Exam
 January

4. Iowa

D1: Pre-clinical: students have 4 to 5 exercises, depending on the operative procedure, to complete before having their progress assessment.

D2: a. Pre-clinical: students have 5 carious teeth exercises to complete in the first semester. These are evaluated at 3 steps and then giving a final point value which is a part of their grade

b. Clinical: D2- Students have procedural requirements in the clinic which they must successfully complete. One class II amalgam, two class II composites, two one surface composites and two one surface glass ionomers are completed over the course of a year. And if they do not complete the requirements in the clinic, they must do two of the same requirement in the sim clinic on extracted teeth.

D3 Clinical - Students have procedural skill assessments in the clinic which they must independently successfully complete over the course of their rotation (20 weeks): one primary caries class II restoration, one complex anterior restoration (IV or III-with recurrent or primary caries present)

- i. D1 – Manikin, D2 - mannequin and patient, D3 - Patient
- ii. Throughout the year, but not within the first 2 weeks for D3

5. Minnesota

(A) The wording of the question seems to obviate the need to describe any testing within the preclinical courses. However, it should be noted that in the final Operative preclinical course (Operative Dentistry III), students must pass a series of practical exams on typodonts that are designed to assess proficiency with various types of restorations. These are gateway exams and students are not assigned patients until they are passed. These assessments include

1. Class II Amalgam (#19-MO preparation & #30-MO condensation & carving)
2. Class IV & II Composite Restorations (#6-MI & #13-MOD)
3. Class II Porcelain Inlay Preparation (#5-MOD)

(B) Once in the clinical Operative course, students are assessed daily on their restorative skills (as describe in IV. c., above). At various times during the year (at least once per semester), the directors of all the clinical courses, the clinic color group leaders, and the associate dean for academic affairs meet to discuss the progression of each student (Clinical Progression Sub-Committee). The Division of Operative Dentistry brings to this meeting the number of each type of restoration each student has performed and their quality assessments, as well as a comparison of these values to those of the rest of the class.

(C) Students must pass three separate live-patient competency exams (as described in IV. c. 2, above) in order to graduate:

1. Class II Amalgam (preparation & restoration)
2. Class III Composite Resin (preparation & restoration)
3. Class II Composite Resin (preparation & restoration)

To the question about “how many times” are the students assessed for a particular Operative procedure, this is difficult to say. For the preclinical gateway practical exams (A, above), the majority of the class passes on the first try. A fair percentage (perhaps 25%) need to retake at least one of these exams. A handful of students will need to retake more than one practical exam or retake the same exam more than once. For the Competency exams (C, above), the majority of the class passes on the first attempt. A small number (perhaps 10%) will need to retake a competency exam. A select few will need to retake an exam more than once and may be required to do remediation.

For general clinical work, the amount of experience with each type of restoration varies across each class. Presented in the table is an average class showing experience at the junior (DDS3) and senior (DDS4) levels and the range of variation.

	Total Restorations Evaluated	Class II Amalgams	Class III or IV Composites	Class II Composites
DDS3				
MEAN	41.48	6.93	15.28	15.45
SD	13.91	4.05	8.32	7.46
DDS4				
MEAN	52.14	6.28	14.18	17.79
SD	21.80	4.23	7.12	7.49

6. Nebraska

7. SIU
 Competency Exams for graduation (3 required in yr III; remaining 3 in yr IV):
 3 surface posterior amal (2 interproximal contacts & occl. contact)
 3 s. posterior composite (2 interproximal contacts & occl. contact)
 Class III composite with an adjacent tooth in contact
 Class IV composite that restores proximal contact
 Back-to-back Class II amalgam or composite which restores proximal contact between the two restorations and has occlusion
 Complex amalgam which restores at least one entire cusp (with or without pin placement)
 i. Live patient
 ii. as the opportunity arises during patient care

8. UMKC
 Five- HOMEWORK, PRACTICAL (both pre-clinical) AND typodont requirement, patient experiences, and COMPETENCY (clinical)
 i. BOTH
 ii. D1,D2,D3,D4

Does your school provide mock boards for your students?

- i If Yes, how are patients obtained?
- ii If Yes, provide details on how mock boards are conducted.
- iii If Yes, is passing the mock boards a requirement for taking the actual board exam?
- iv If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards?
- v If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards

<p>1. AT Still YES</p> <ul style="list-style-type: none">i From the established patient pool, and also through community/public advertisement and word-of-mouth for screeningsii Organized by faculty with experience as a WREB examiner and chief examiner. Entire WREB examination is simulated, including manikin sections for prosthodontics and endodontics, in addition to live-patient sections for periodontics and restorative procedures. Students are allowed to utilize performance on Mock WREB for periodontics and operative procedure for clinical competency credit.iii Mock WREB is considered one of the Essential Experiences for graduation. Successful completion of Mock WREB is required for graduation. Successful remediation is required if failure of first attempt. Students are not withheld from the actual WREB if unsuccessful at Mock WREB prior to the actual exam.iv Nov No, but to date, 100% first-time pass rate on WREB
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<p>2. Colorado no answer provided</p>
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<p>3. Creighton - Yes</p> <ul style="list-style-type: none">i. Students find their own patients from their patient families.ii. Daylong exam that runs like a CRDTS exam, i.e., Class II, Classes III, and Perio.iii. Yesiv. No <p>Each year we measure the Pass/Fail rate of all of our internal competency exams and measure them against the external exams. The Regional Board Exams show fewer failures than the internal exams.</p>

<p>4. Iowa NO</p>

<p>5. Minnesota</p> <p>There are two different types of “mock board experiences” provided. (1) MANIKIN MOCK BOARD: In the third year, students are required to take a manikin mock board exam covering prosthodontics and endodontics. This exam will not be considered in the ensuing sub-questions. (2) PATIENT MOCK BOARD: In the fourth year, an optional mock board experience is provided that mimics the operative and periodontal aspects of the live-patient licensing exam. Although optional, approximately 95% of the class participates. The following sub-questions refer to this “patient mock board.”</p> <ul style="list-style-type: none">i. Students select from their patient pool and must select treatment from an active treatment plan.ii. The goal of the “patient mock board” is to give students experience with the protocols and time management concerns of the CRDTS (and similar) live patient licensing exams. As such, the results of the exam are not included in computation of the student's overall clinical grade. Students are encouraged to find restorative services that will match what they plan to do for the licensure exam (e.g., Class II amalgam), but if these are not readily available, then any routine restorative work (e.g., Class I amalgam) will be accepted. Patients are not charged for these restorations. <p>Mock boards for Operative and Periodontics utilize live patients. Manikins are not accepted. The day of the exam the normal general clinics are closed and reserved for the exam. Faculty from the Primary Care division act as the floor examiners. Operative Dentistry division faculty staff the restorative grading bay. Periodontal division faculty staff the periodontal grading bay. Third year dental students assist and</p>

lead patients to and from the grading bay. Front desk staff and assistants help with general support and forms. Copies of the CRDTs forms are used in the exam. The mock board exam mirrors as closely as possible the CRDTs exam.

The week after the exam a debriefing meeting is scheduled between the supervising faculty and the student participants. At this meeting students are provided with general feedback on how the exam went and what sorts of errors in procedure were witnessed.

Faculty at the University of Minnesota School of Dentistry have voted to eliminate support for live patient licensure exams due to ethical concerns. Therefore, the future of patient mock boards at the school is uncertain.

iii. No.

iv. No.

v. Since all students who take the licensure exam have taken the mock board exam, there is no opportunity to do a controlled study. However, student feedback after taking the licensure exam has been very supportive of the efficacy of this experience.

6. Nebraska

7. SIU YES

i. Patients of record, screening of friends, family and local advertising offered discounted treatment

ii. First mock board – January, provide any two restorations to one or two patients of record following the boards protocol, acts as a walk through on the process and practice with the paper work involved

a. Floor examiner check in and acceptance, evaluate paper work

b. Modification requests approved by examiners

c. Prep and restoration final checks done by examiners

d. Instructions to candidate form used by examiners

2. Second mock board – February, again, provide any two restorations to one or two patients of record following the boards protocol, evaluated more harshly on following proper protocol with less “hand holding” through the process

3. Third mock board – March, perform the exact preparation and restoration you plan on completing for the official board exam on a manikin with instructor feedback (most students will know what their plans are by this point)

iii. No

iv. Yes, but only for the third and final mock board. No ideal board lesions are allowed to be used for the mock boards to prevent wasted opportunity.

v. No, student feedback is generally positive though.

8. UMKC YES

i. Typodont for operative

ii. OPERATIVE DONE ON TYPDONT (PERIO WORKS ON REAL PATIENTS)

iii. NO, GRADUATION YES

iv. YES FOR OPERATIVE

Administration

Does your school have a faculty practice?

i. Offer practice time?

ii. Provide details about the options available for the faculty at your school.

1. AT Still - No faculty practice - The Dean encourages full-time faculty to have 0.8 FTE appointment to enable 1 day of practice work
2. Colorado no answer provided
3. Creighton No; however, clinical space is dedicated to it. Yes. Many of us practice one day or two ½ days a week. To practice a full day a week, faculty buy back a ½ day a week to do so.
4. Iowa YES i. Not outside of the building – not permitted. ii. Intramural practice only, Operative faculty practice 10% (4), 20% (6) and 30% (1) time in the “Dental Service Plan” in the Faculty General Practice within the building. Note that not all faculty are employed full time. Activity in the intramural practice has limited ability to increase ones salary.
5. Minnesota The school has a small faculty practice but it cannot accommodate all of the full time clinical faculty. Therefore, we have the option of working one day per week in private practice. Recently the university has been considering taking control of the business relationship between the private practice and the faculty.
6. Nebraska
7. SIU i. No faculty practice is currently available but the process of establishing one has been in the works for the past 3 years ii. Faculty are offered the option of one day per week in private practice or 5 days per week at the school at the same salary to encourage maintenance of hand skills and supplementation of income
8. UMKC YES WE HAVE A FACULTY PRACTICE OR ONE CAN WORK OUTSIDE THE SCHOOL

How does your school allow for mandated accommodations for students with a learning disability?

i. For examinations and/or practical?

ii. How often have you had to deal with this issue?

iii. What were the learning disabilities?

iv. Please provide your University/School’s policy statement?

1. AT Still <u>In Course Syllabi:</u> Disability Statement Learning & Disability Resources (LADR) supports ATSU students with disabilities by determining eligibility and coordinating necessary academic adjustments (accommodations), while maintaining the standards of the University. Any student seeking academic adjustments to accommodate limitations due to a documented disability is required to register with LADR. ATSU faculty will not provide disability-related academic adjustments without referral to and notice from LADR. <u>In the Student Handbook:</u> Learning & Disability Resources Learning & Disability Resources (LADR) provides advising and services to ATSU students who want to enhance their learning and academic
--

performance. In addition, LADR coordinates academic adjustments (accommodations) for ATSU students with disabilities. LADR provides one-on-one, confidential learning advisement sessions tailored to individual learning preferences and challenges. Periodically throughout the academic year, seminars and/or workshops are offered on specific learning techniques. Guidance is also available for board exam preparation. Peer tutors are recruited and coordinated through our department as well. We encourage every student to visit our office at least once to receive a personalized learning advisement session, and students are welcome to return as often as desired for additional support and guidance. Academic adjustments

(Accommodations) In accordance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the Amendments Act of 2008, Learning & Disability Resources supports ATSU students with disabilities by determining eligibility and providing necessary academic adjustments, while maintaining the standards of the University. Academic adjustments are provided for qualified students with disabilities, to ensure that academic requirements do not have discriminating effects. Any student seeking academic adjustments to accommodate limitations due to a documented disability is required to register with Learning & Disability Resources. Requests for academic adjustments must be made in writing and should be submitted to disabilityresources@atsu.edu. To read the entire Academic Adjustments Policy, please see Appendix G.

Learning advisement Individual learning advisement consultations are available to enable students to achieve academic success. Tailored to each her/his learning preferences and particular challenges, learning advisement sessions may address a variety of needs including: effective learning techniques, efficient time management, improving long-term recall, various note-taking styles, test-taking strategies, and developing a board exam study plan.

2. Colorado no answer provided

3. Creighton

Students must have a documented learning disability on file to receive special testing accommodations. The Dean of Student Affairs manages this program.

- i. Only for written exams; time may range from 1.5 – 2.0 times the allotted time given for the exam. Students go to a testing center on the main campus.
- ii. On a regular basis with every exam. There are currently 1 senior, 2 juniors, 1 sophomore and 4 freshman who receive special accommodations.
- iii. As faculty, we are not allowed to know what the learning disability is unless the student discloses it themselves.
- iv. Creighton University is committed to providing all students equal access to educational opportunities, programs, and activities. Students with disabilities seeking accommodations must register with the Office of Disability Accommodations, complete a written needs assessment, and provide the ODA with documentation by a qualified evaluator. The ODA evaluates accommodation requests and ensures that reasonable accommodations are provided in a timely manner.

4. Iowa

- i. both
- ii. nearly every class, every year
- iii. We aren't necessarily told unless it is obvious. We know the accommodation that is required to help, e.g. more time, private test area, separate microphone for hearing impairment.

iv.

Required statements in every syllabi:
Nondiscrimination Statement THE UNIVERSITY OF IOWA OFFICE OF EQUAL OPPORTUNITY AND DIVERSITY The University of Iowa prohibits discrimination in employment and in its educational programs and activities on the basis of race, national origin, color, creed, religion, sex, age, disability, veteran status, sexual orientation, gender identity, or associational preference. The University also affirms its commitment to providing equal opportunities and equal access to University facilities. For additional information on nondiscrimination policies, contact the Office of Equal Opportunity and

Diversity, (319) 335-0705 (voice) and (319) 335-0697 (text), 202 Jessup Hall, The University of Iowa, Iowa City, Iowa 52242-1316.

Annual university policy statements:

UI NONDISCRIMINATION STATEMENT:

The university's Nondiscrimination Statement was revised in 2015 to include new protected categories.

The University of Iowa prohibits discrimination in employment, educational programs, and activities on the basis of race, creed, color, religion, national origin, age, sex, pregnancy, disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, associational preferences, or any other classification that deprives the person of consideration as an individual. The university also affirms its commitment to providing equal opportunities and equal access to university facilities. For additional information on nondiscrimination policies, contact the Office of Equal Opportunity and Diversity (319-335-0705): <http://opsmanual.uiowa.edu/community-policies/nondiscrimination-statement>.

The university's Nondiscrimination Statement must be included in all departmental publications, such as brochures, pamphlets, manuals, and guidebooks, describing or inviting participation in programs affiliated with the University of Iowa. The inclusion of the Nondiscrimination Statement is required by federal regulation and is designed to make clear to prospective applicants or participants the university's commitment to equal opportunity in employment and equal access to its programs and activities.

For more information see: <http://diversity.uiowa.edu/policies/non-discrimination-statement>. To review the complete policy, please see: <http://opsmanual.uiowa.edu/community-policies/nondiscrimination-statement>.

UI HUMAN RIGHTS POLICY:

The university is guided by the precepts that in no aspect of its programs shall there be differences in the treatment of persons because of race, creed, color, religion, national origin, age, sex, pregnancy, disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, associational preferences, or any other classification that deprives the person of consideration as an individual, and that equal opportunity and access to facilities shall be available to all. To review the complete policy, please see: <http://opsmanual.uiowa.edu/community-policies/human-rights>.

AMERICANS WITH DISABILITIES ACT (ADA, Federal Law):

The Americans with Disabilities Act of 1990 affords civil rights protections to individuals with disabilities similar to those protections provided to individuals on the basis of race, color, sex, national origin, age, and religion. It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications. For more information about the ADA, please see the Department of Labor website: <https://www.dol.gov/general/topic/disability/ada>.

To comply with the ADA, the University is committed to making reasonable accommodations for the functional limitations of applicants, employees, and students with disabilities. Applicants and employees who wish to request a reasonable accommodation because of a disability should contact Faculty & Staff Disability Services at 335-2660 or <https://hr.uiowa.edu/fsds> ; UI Health Care employees should contact UI Health Care Leave and Disability at 356-7543. Students who wish to request a reasonable academic accommodation should contact Student Disability Services at 335-1462 or <https://sds.studentlife.uiowa.edu/>.

For more information, please contact the University's ADA Coordinator, Ms. Tiffini Stevenson Earl, in the Office of Equal Opportunity and Diversity (335-0705, voice; 335-0697, TDD; <https://diversity.uiowa.edu/policies/ada-coordinator>).

UI ACCESSIBILITY STATEMENT:

Per the university's Accessibility Statement, the following language must be included in all institutional or departmental publications that describe or invite public participation in programs at the university, whether the publication is dispersed via print or electronic means, published on the Internet, or advertised using social media.

"Individuals with disabilities are encouraged to attend all University of Iowa-sponsored events. If you are a person with a disability who requires a reasonable accommodation in order to participate in this program, please contact (insert: the sponsoring department or contact person) in advance at (insert: telephone number)."

The sponsoring department name or contact person and telephone number must be incorporated into the statement as the sponsoring department is responsible for making the necessary reasonable accommodations.

The text of the statement can be found in the university's Operations Manual at:

<https://opsmanual.uiowa.edu/community-policies/disability-protection-policy-and-accessibility-statement>.

5. Minnesota

Generally these apply to learning disabilities that affect didactic courses. Letters come to course directors from an "access consultant" at Disability Resource Center (a university program within Office for Equity and Diversity). Specific learning disabilities are no longer identified (probably a HIPAA issue). Accommodations are described and, should the student decide to request the accommodation, tacitly mandated for the course director to comply.

i. Although not expressly stated, examination accommodations are applied to written exams only. The school of dentistry has a policy of not allowing extended time for clinical exams (because of concerns about the patients). By extension, extended time is also not allowed for practical exams, since they are preparatory for the clinical setting.

ii. Every preclinic course has several accommodation letters. For the current summer semester (Operative Dentistry I) there are eight accommodation letters for a class of 110. All have one thing in common—extended time for exams and quizzes.

iii. Specifics about the learning disability are not shared with course directors.

iv. Course syllabi include this boiler plate statement:

The University of Minnesota is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center (DRC) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.

- If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact the DRC at 612-626-1333 to arrange a confidential discussion regarding equitable access and reasonable accommodations.

- If you are registered with the DRC and have a current letter requesting reasonable accommodations, we encourage you to contact your instructor early in the semester to review how the accommodations will be applied in the course.

Additional information is available on the DRC website: <https://diversity.umn.edu/disability/>

Here is the typical wording of an accommodation letter from the Disability Resource Center (Summer 2018):

XXX XXX is enrolled in your course and is registered with the Disability Resource Center (DRC). The University of Minnesota is committed to providing equitable access for students, and has designated the Disability Resource Center as the office to determine reasonable accommodations, in consultation with students and their instructors. This letter identifies accommodations that are intended to minimize barriers and provide equitable access for this student without compromising the essential elements of your course. Disability and health information is confidential; please discuss the details of this letter on a need to know basis only.

I have encouraged XXX to share this letter and talk with you about which of the following accommodations they will use in your course and how these accommodations will be implemented. I encourage you to contact me if you have any questions or concerns: (sampling of accommodations that are typically listed)

Classroom Accommodations

- Electronic device, provided by the student, to record lectures.

Testing Accommodations

- Extended time for all exams and quizzes: time and one half.
- Private, quiet low-distraction room.
- Use of earplugs during exam.

The DRC Testing Center is a resource for instructors and students when the department cannot provide testing accommodations on-site.

With advance notice, XXX may use any or all of these accommodations throughout the semester. I recommend that you and the student use this letter to discuss these accommodations in your course. Please share this letter with any colleague who has responsibilities for implementing accommodations in your course. If you have questions about anything in this letter or would like consultation or outreach regarding access issues, please contact me. I look forward to working with you.

For more information about inclusive (or universal) design strategies and resources, visit: z.umn.edu/inclusive design

6. Nebraska

7. SIU In order to receive accommodations through our office, one must establish that they have a disability. Under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, a disability is a “permanent impairment that significantly limits a major life activity.” “Our missions at SIU is to provide reasonable accommodations to ensure that diverse learners have access to the University and its programs through proactive and intentional interventions, resources and programming designed to meet federal compliance guidelines, while removing barriers, encouraging personal growth, and increasing effective communication.” Documentation of your disability needs to come from a professional in the field of your disability. Additionally, it must include a specific diagnosis and copies of any testing done to establish a diagnosis. The information provided is confidential and the Office of Student Services at the SDM can assist the student with this process. Students needing accommodations for exams and/or practicals can be accommodated after verification has been performed.

- Quiet room and additional time on test (time and a half – double time)
- Not very often, but we are seeing these types of issues occur more and more
- The specifics on the disability associated with the need for accommodations are not shared with the faculty out of discretion to the students privacy
- The Office for Accessible Campus Community and Equitable Student Support (ACCESS) provides reasonable accommodations to ensure that diverse learners have access to the University and its programs through proactive and interventions, and resources and programming designed to meet federal compliance guidelines, while removing barriers, and encouraging personal growth and increasing effective communication.

8. UMKC

i. FOR LECTURE EXAMS, NOT PRACTICAL. We have a staff member with a counseling background who proctors these exams and allows for longer times (students are allotted 1.5 times or 2 times the amount of time to complete exams.)

ii. EVERY CLASS

iii. ADHD, DYSLEXIA, ETC. THEY DON'T TELL US

iv. “To obtain disability related accommodations, students with disabilities must contact the Office of Services for Students with Disabilities at 816-235-5696.”

Regional Meeting Report Form

Host University, Address, and Dates of the 2018 Regional Meeting:

Host University	Address	Dates of Meeting
University of Nebraska	Lincoln, NE	Sept 19 - 21

Chairperson and Contact Information for the 2018 Regional Meeting:

Chairperson	University/Address	Phone/email
William Johnson	University of Nebraska	wwjohnson@unmc.edu

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

Contact Person, Host University, and Dates of the 2019 Regional Meeting:

Contact Name Phone/email	Host University/Address	Dates of Meeting
Dr. Brandon Crivello brandoncrivello@atsu.edu	A. T. Still University, Kirksville, MO	Sept. 19 – 20, 2019

Region II CODE Meeting Attendees
September 19 – 21, 2018

A.T. Stills – Brandon Crivello

Colorado – Ana Elashvili Evans

Creighton – Scott Shaddy and Jenn Hasslen

Iowa – Deb Cobb

Marquette – Gary Stafford

Minnesota – Gary Hildebrandt

Nebraska – Bill Johnson

SIU – Christa Hopp and Joe Sokolowski

UMKC – Melynda Meredith and Lance Godley

C.O.D.E. 2018 National Agenda

I. Clinical Curriculum

LSU School of Dentistry

I. Curriculum

a. Operative Course(s):

- i How many semesters and in what year(s) is your operative dentistry course taught?

We do not have semesters. If we did, I would say:

**D1- 1.5*

**D2- 2.25*

**D3- 2.25*

- ii How many hours per week are devoted to the operative dentistry course?

**D1- 8 hours*

**D2- pre-clinical review @ 4 hours for 10 weeks = 40 hours*

- clinical @ 3 hours for 29 weeks = 87 hours

**D3- Didactic Course @ 2 hours for 16 weeks = 32 hours*

- Approximately 111 clinical hours needed to complete a minimum of 33 indirect restorations from Aug 6, 2018 to May 21, 2019.

- iii What is/are the course title(s)?

- 1. How many credit hours are given for each course?

D1 – Fundamentals of Operative Dentistry – 200 hours

D2 - Introduction to Clinical Operative Dentistry – 127 hours

D3 – Advanced Clinical Operative Dentistry – 143 hours

- 2. Please list the course description(s) as seen in your Bulletin.

D1 – Fundamentals of Operative Dentistry

This lecture and laboratory course teaches the basic principles of cavity design and restoration to prepare students for the clinical Comprehensive Dentistry. It teaches procedures necessary to restore teeth with amalgam, cast gold and composite resin. Current bonding systems and adhesive dentistry will be introduced. Cavity preparations are made and the restorations placed in extracted natural teeth and plastic teeth in a typodont. The laboratory portion of this course is given

in the simulation laboratory to duplicate closely the conditions the student will encounter in the clinic.

D2 - Introduction to Clinical Operative Dentistry

In this course, the student gains valuable clinical experience and skill in the art and science of Comprehensive Dentistry. The student will treat the patient using the knowledge and technique acquired from previous didactic and laboratory courses.

D3 – Advanced Clinical Operative Dentistry

The purpose of this course is to develop sound clinical skill and judgment in the placement of a variety of direct and indirect dental restorative materials including composite, amalgam, and possibly, cast gold and porcelain. Students will learn sound patient management and clinical problem-solving techniques through direct patient care and didactic course work with the goal of gaining the ability to work independently. Confidence in the selection of proper restorative techniques and materials for a variety of clinical needs will be enhanced, and students will learn to evaluate critically new materials and techniques. Successful completion of both didactic and clinical sections is required for completion of this course.

- iv What didactic resources does your Operative course(s) utilize?
 - 1. Required textbook(s)? **Note -- Last year on VitalSource.**
 - a. If Yes, which one(s)?
 - * *Hilton, Ferracane and Broome, Summitt's Fundamentals of Operative Dentistry, 4th Edition Quintessence Books, 2013.*
 - * *Sturdevant's Art and Science of Operative Dentistry, 6th Edition, Elsevier, 2012*
 - 2. Lab manuals - **Yes**
 - 3. Course packets - **No**
 - 4. Handouts - **YES**
 - 5. Live hands-on demonstrations - **Yes**
 - 6. Self-made videos (private domain)
 - a. If yes, would you be willing to share?
Faculty member that made them is unwilling to provide them.
 - 7. You Tube videos (public domain) **No**
 - 8. Professionally-made videos (purchased for private use) **No**
 - a. If yes, how do you like them? Who made the video(s)?
 - b. If No, would your school consider purchasing high quality videos?
Possible.
- v What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.). **Last year for Vitalsource.**

- vi Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? **No**
 - 1. If yes, please describe.
 - vii Is there any OSCE exam in the operative course in your school?
 - 1. If yes, please describe. **Not in Operative. We do have a Multi-Disciplinary OSCE exam at end of D3 year (not a requirement for advancement or graduation at this time).**
- b. Operative Faculty:
- i How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? **4 Full-time and 10 part-time faculty.**
 - ii How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.) **Formal presentations and photos are most common.**
- c. How are patient treatment plans developed?
- i Who is involved in the process? **Department of Diagnostic Sciences Faculty and Comprehensive Clinical Care Faculty with consultations with Pros, Perio, OS, Ortho, and Endo.**
 - ii How are these patients then assigned to students? **Through a Patient Care Coordinator based on students's mini-clinic needs.**
 - iii How long does it take a patient to begin their actual treatment from the time of their initial contact to the school? **Immediately (Emergency Care) upon acceptance at the screening department, then 4-6 Months before Phase 1 (disease control) appointment.**

University of Mississippi, School of Dentistry

- I. Curriculum
- a. Operative Course(s):
- i How many semesters and in what year(s) is your operative dentistry course taught?
 - ii How many hours per week are devoted to the operative dentistry course?
 - iii What is/are the course title(s)?
 - 1. How many credit hours are given for each course?
 - 2. Please list the course description(s) as seen in your Bulletin**Answers: SEE ADDENDUM**
 - iv What didactic resources does your Operative course(s) utilize?
 - 1. Required textbook(s)? **Yes**
 - a. If Yes, which one(s)?
Sturdevant's Art and Science of Operative Dentistry

***Sixth Edition Fundamentals of Operative Dentistry
Fourth edition***

2. Lab manuals **Yes**
 3. Course packets **Yes**
 4. Handouts **Yes**
 5. Live hands-on demonstrations **Yes**
 6. Self-made videos (private domain) **No**
 - a. If yes, would you be willing to share?
 7. You Tube videos (public domain) **No!**
 8. Professionally-made videos (purchased for private use) **No**
 - a. If yes, how do you like them? Who made the video(s)?
 - b. If No, would your school consider purchasing high quality videos? (?) **Maybe**
- v What other resources do you provide? (Lab manuals, course packets, supplementary reading, etc.). **PowerPoints**
- vi Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? **No**
 1. If yes, please describe.
- vii Is there any OSCE exam in the operative course in your school?
Yes
- b. Operative Faculty:
- i How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?
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 - ii How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (Formal presentations, photographs, typodonts, etc.) **Mostly typodonts**
- c. How are patient treatment plans developed?
- i Who is involved in the process? **Exam, radiographs, consults, record review, treatment plan presentation**
 - ii How are these patients then assigned to students? **By patient care coordinator**
 - iii How long does it take a patient to begin their actual treatment from the time of their initial contact to the school? **About 1-2 months**

University of Oklahoma, College of Dentistry

I. Curriculum

a. Operative Course(s):

- i How many semesters and in what year(s) is your operative dentistry course taught?
- ii How many hours per week are devoted to the operative dentistry course?
- iii What is/are the course title(s)?
 1. How many credit hours are given for each course?
 2. Please list the course description(s) as seen in your Bulletin.

Preclinic Operative 1 Theory course – 1st year Spring semester

- ***2 hours / week, 2 hours credit***

This course provides the didactic material necessary to allow the student to understand the nomenclature, materials, techniques, and philosophies involved with the diagnostic, treatment planning, and procedural skills associated with basic operative dental procedures. This material will be applied and practiced in the Operative Dentistry I Preclinic Lab course.

Preclinic Operative 1 Lab course – 1st year Spring semester

- ***6 hours / week, 3 hours credit***

This course is designed to develop the student's motor skills while learning to apply the principles learned in the Operative Dentistry I Preclinic Theory course. It will provide the student time to repetitively practice various techniques to become more familiar and comfortable with the procedures.

Preclinic Operative 2 Theory/Lab course – 2nd year summer/fall semesters

- ***4 hours /week, 2 hours credit***

This course is designed to prepare students to render operative clinical treatment for their patients. Fundamental principles of operative dentistry are reviewed and expanded upon in this course. New dental materials and restorative techniques are introduced in a lecture format, and then applied in a simulated clinical environment.

Operative Clinic 1 course – 2nd year spring semester

- ***6 hours / week, 1 hours credit***

This is the first of two clinical course offered in the Operative Division clinic curriculum. It is designed to allow second year dental students to initiate

operative clinical care for the patients of record assigned to each student. Most of the procedures attempted in the clinics during this initial course should be simple procedures that will be within the scope of the students' abilities at this point in their development. Patients with immediate need for treatment of more advanced procedures will be referred to fourth year dental students for limited care of those specific needs during this course.

Operative Clinic 2 course – 3rd year summer, fall, spring semesters

- **15 hours / week, 3 hours credit**

This is the second clinical course offered by the Operative Division. It is designed to allow third year dental students to continue operative clinical care for the patients of record assigned to each student. The procedures attempted in the clinics during this course should slowly evolve into more difficult procedures that will expand the scope of the students' clinical abilities.

iv What didactic resources does your Operative course(s) utilize?

1. Required textbook(s)?

- a. If Yes, which one(s)?

Yes, Summitt's Fundamentals of Operative Dentistry

2. Lab manual

Yes

3. Course packets

No

4. Handouts

Sometimes

5. Live hands-on demonstrations

As needed by each lab group instructor

6. Self-made videos (private domain)

Yes, mainly use short clips during lectures

7. You Tube videos (public domain)

We do not generally have any videos that we recommend on You Tube.

8. Professionally-made videos (purchased for private use)

- a. If yes, how do you like them? Who made the video(s)?

- b. If No, would your school consider purchasing high quality video

No, probably can make any that we need

v What other resources do you provide? (Lab manuals, course packets, supplementary reading, etc.).

Lab manuals as mentioned above.

- vi Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth?

No

- vii Is there any OSCE exam in the operative course in your school?

No

b. Operative Faculty:

- i How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?

Full-time: 3 Part-time: 5

- ii How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (Formal presentations, photographs, typodonts, etc.) **Provide each new instructor with a 40-page document reviewing operative division teaching philosophies, materials, evaluation forms and specific evaluation criteria for every operative procedure that we teach. We try to calibrate the faculty that grade the exam procedures by using multiple graders for each typodont, and reviewing and discussing the evaluation of any typodont that receives evaluations varying by 10 points or more between instructors.**

c. How are patient treatment plans developed?

- i Who is involved in the process?

Communications center

Oral Diagnosis Faculty

4 year/3 year Dental students (rotation).

Group Practice Directors

- ii How are these patients then assigned to students?

Assigned by Comprehensive Care Chair according to student needs.

Limited treatment is assigned by GPD.

- iii How long does it take a patient to begin their actual treatment from the time of their initial contact to the school?

4 months

The University of Tennessee, Health Science Center

a. Curriculum

a. Operative Course(s):

- i. How many semesters and in what year(s) is your operative dentistry course taught?

The D1 Operative course is taught in both semesters of the first year. The Intro Composite course is taught in the second semester of the D1 year. An Intro to CAD/CAM Dentistry is taught at the end of the D1 second semester. Dental Morphology is taught in the first semester of the D1 year. The D2 Composite Resin and Advanced Esthetic Dentistry Courses are taught in the second semester of the D2 year. There is a short (5 lecture) Advanced Operative Course for the D4 students in the first semester of their D4 year.

- ii. How many hours per week are devoted to the operative dentistry course?
12 hours per week for the D1 students. 8 hours per week for the D2 students.

- iii. What is/are the course title(s)?

1. How many credit hours are given for each course?
2. Please list the course description(s) as seen in your Bulletin.

Please see attached file for the list of courses, credit hours, and course description.

- iv. What didactic resources does your Operative course(s) utilize?

1. Required textbook(s)?

- a. If Yes, which one(s)?

Suggested textbooks:

Sturdevant's Art and Science of Operative Dentistry. 6th edition, Heymann, Swift, Ritter. 2012

Ronald Sakaguchi, John Powers. Craig's Restorative Dental Materials, 13th Edition. Mosby Elsevier Health Science, 2012; Kenneth J. Anusavice, Chiayi Shen, H. Ralph Rawls. Phillips' Science of Dental Materials, 12th Edition. Elsevier, 2012

2. Lab manuals ***No***

3. Course packets ***No***

4. Handouts ***Yes***

5. Live hands-on demonstrations ***Yes***

6. Self-made videos (private domain) ***Yes***

- a. If yes, would you be willing to share? ***Possibly***

7. You Tube videos (public domain) ***Sometimes***

8. Professionally-made videos (purchased for private use) ***Yes***

- a. If yes, how do you like them? ***OK***

Who made the video(s)?

Mangani F, et al, Guidelines for Adhesive Dentistry the key to success (Quintessence)

- b. If No, would your school consider purchasing high quality videos?
- v. What other resources do you provide? (Lab manuals, course packets, supplementary reading, etc.).
Supplementary readings
- vi. Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth?
1. If yes, please describe.
Learn-a-Prep block
Extracted teeth for Dental Morphology tooth identification.
Extracted carious teeth for caries removal?
- vii. Is there any OSCE exam in the operative course in your school?
1. If yes, please describe.
No? (What is OSCE exam?)
- b. Operative Faculty:
- i. How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? **Since the undergraduate clinic is closed on Wednesday mornings for classes, 10 F/T and 2 P/T faculty members are available to teach in the pre-clinical lab.**
 - ii. How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (Formal presentations, photographs, typodonts, etc.)
Formal presentations with photographs.
Junior faculty calibrated with seasoned faculty through grading of practical exams.
- c. How are patient treatment plans developed?
Patients call the school and are placed on a call list. Students randomly get names from the lists and call patients to come to the school for Orientation. After Orientation, the patient is scheduled in Oral Diagnosis for evaluation, radiographs, and initial treatment planning by the contacting student. Following this, they are scheduled with their respective Group leaders who then complete and approve the treatment plans.
- i. Who is involved in the process? **Students, patients, administrative personnel of Clinical Affairs, Oral Diagnosis faculty, Group Leaders**
 - ii. How are these patients then assigned to students? **After approval of the treatment plan, if the case is appropriate for under graduate students, the student who did the case presentation is assigned the patient if they want to treat that patient. Otherwise, the patient is assigned to another student who needs those procedures.**
 - iii. How long does it take a patient to begin their actual treatment from the time of their initial contact to the school? **It can take anywhere from two weeks to two months depending on the backlog in Oral Diagnosis.**

UTHSC at Houston, School of Dentistry

I. Curriculum

a. Operative Course(s):

- i. How many semesters and in what year(s) is your operative dentistry course taught?

7 semesters

1604 Operative Dentistry I – Spring Freshman

2604 Operative Dentistry II – Fall Sophomore

3006 Operative Dentistry Clinic – Spring Junior

3006 Operative Dentistry Clinic – Summer Junior

3006 Operative Dentistry Clinic – Fall Junior

4006 Operative Dentistry Clinic – Spring Senior

4006 Operative Dentistry Clinic – Fall Senior

- ii. How many hours per week are devoted to the operative dentistry course?

Operative I and II (preclinical) – 8 hours per week each

Clinical will depend on patients and appointment availability, and procedures needed.....

- iii. What is/are the course title(s)?

DEPS 1604 Operative Dentistry I

DEPF 2604 Operative Dentistry II

CLIN 3006 Operative Dentistry Clinic

CLIN 4006 Operative Dentistry Clinic

1. How many credit hours are given for each course?

4.0 to each course

2. Please list the course description(s) as seen in your Bulletin.

Operative Dentistry I's GOALS:

The goal of this course is to prepare you to transfer your knowledge and skills pertaining to operative dentistry procedures (amalgam restorations, composite resin restorations and current bonding systems and techniques) from the dentaforms on the laboratory bench to the clinical setting on a patient. You will perform the operative dentistry procedures on dentaforms benchtop or mounted in the Kavo heads utilizing direct and indirect vision to simulate clinical operative dentistry procedures. You will learn how to position the head, your chair, and hand positions for handpiece and instrument utilization that will enable you to perform operative restorative procedures within the Kavo head that simulates the restricted working area of the oral cavity on a patient. You will also be introduced to advanced composite resin restorations and the techniques and fabrication procedures involved in their application. You will learn the correct technique for utilization of a current bonding system as well as becoming knowledgeable regarding the rationale of effective bonding.

Students will learn to apply Evidence-based Dentistry principles to operative dentistry procedures in clinical practice from lectures and PBL exercises. During these lectures and exercises, students will be taught to 1) utilize the judicious integration of systematic assessments of clinically relevant scientific evidence, and 2) relate to the patient's oral and medical condition and history, the health provider's clinical expertise, and the patient's needs and preferences.

Operative Dentistry II's GOALS:

The goal of this course is to prepare you to transfer your knowledge and skills pertaining to operative dentistry procedures (silver amalgam restorations, composite resin restorations and current bonding systems, techniques) from the dentaforms on the laboratory bench to the clinical setting on a patient. You will perform the operative dentistry procedures on dentaforms mounted in the Kavo heads utilizing direct and indirect vision to simulate clinical operative dentistry procedures. You will learn how to position the head, your chair, and hand positions for handpiece and instrument utilization that will enable you to perform operative restorative procedures within the Kavo head that simulates the restricted working area of the oral cavity on a patient. You will also be introduced to advanced composite resin restorations and the techniques and fabrication procedures involved in their application. You will learn the correct technique for utilization of a current bonding system as well as becoming knowledgeable regarding the rationale of effective bonding.

Students will learn to apply Evidence-based Dentistry principles to operative dentistry procedures in clinical practice from lectures and EBD exercises. During these lectures and exercises, students will be taught to 1) utilize the judicious integration of systematic assessments of clinically relevant scientific evidence, and 2) relate to the patient's oral and medical condition and history, the health provider's clinical expertise, and the patient's needs and preferences.

CLIN 3006 Operative Dentistry Clinic:

The purpose of CLIN 3006 Operative Dentistry Clinic is to increase knowledge and improve skills in clinical Operative Dentistry. The primary focus includes the management and comprehensive dental care of patients requiring basic Operative Dentistry procedures. Students will also continue to develop patient assessment, diagnosis, prognosis and treatment planning abilities to help ensure success of subsequent fundamental Operative Dentistry procedures. Emphasis will be placed on the delivery of quality, compassionate and ethical comprehensive dental care. This care includes: 1) evaluation of the caries risk of the patient; 2) evaluation of the health of

pulpal tissue as it relates to the restoration of damaged teeth; 3) evaluation of the periodontium as it relates to the restoration of damaged teeth; 4) selection of the appropriate cavity design(s) and dental material(s) that restore damaged teeth to their optimal form, function and occlusal relationships; and, 5) providing adequate patient comfort.

CLIN 4006 Operative Dentistry Clinic:

The purpose of CLIN 4006 Operative Dentistry Clinic is to allow students to continue to develop and refine the skills and knowledge necessary to properly diagnose, establish a treatment plan and perform a variety of procedures with appropriate materials or manage the patient's care in the context of comprehensive care. Therefore, the student must become competent to perform all necessary tasks required for the management of patients in the process of delivering comprehensive care.

- iv What didactic resources does your Operative course(s) utilize?
 - 1. Required textbook(s)? **Yes.**
 - a. If Yes, which one(s)? ***Summitt's and Sturdevant's***
 - 2. Lab manuals? **No.**
 - 3. Course packets? **No.**
 - 4. Handouts? **YES, in Operative I and II, very detailed for each lab session, on canvas.**
 - 5. Live hands-on demonstrations? **Yes.**
 - 6. Self-made videos (private domain) **Yes.**
 - a. If yes, would you be willing to share? **Yes.**
 - 7. You Tube videos (public domain)? **Yes. Videos are on MedEdPortal.**
 - 8. Professionally made videos (purchased for private use)? **Yes, self-made professionally in the school.**
 - a. If yes, how do you like them? **Very nice videos.**
 - b. Who made the video(s)? **Our school, IT department**
 - c. If No, would your school consider purchasing high quality videos? **Depending on material quality, techniques taught.**
- v What other resources do you provide? (Lab manuals, course packets, supplementary reading, etc.). **Lab handouts, already mentioned.**
- vi Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? **Yes.**
 - 1. If yes, please describe. **Natural teeth exercises for caries diagnosis and removal, glass ionomer, sealant, PRR and composite placement; situation tooth for simulated caries removal, placement of liners and bases, build-ups.**
- vii Is there any OSCE exam in the operative course in your school?
 - 1. If yes, please describe. **Yes, instrument exam (O.D.I) includes instruments, terminology, preparation classification, and ergonomics.**

- d. Operative Faculty:
- i How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?
FT- 7 PT- 4
 - ii How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (Formal presentations, photographs, typodonts, etc.)
Required to attend all lectures, read all handouts, lectures on canvas required viewing, informal calibration on practical exam grading. In addition, we have departmental calibration sessions at least twice per year that are required attendance.
- e. How are patient treatment plans developed?
- i Who is involved in the process?
2nd year: on clinic floor with attending faculty
3rd year: treatment-planning clinic
4th floor with attending faculty
 - ii How are these patients then assigned to students?
Assigned in assessment clinic, students keep patients they treatment plan.
 - iii How long does it take a patient to begin their actual treatment from the time of their initial contact to the school?
Depends on appointment availability with each student. On first visit, patient watches a video about how the clinic works, before committing to treatment with us. After they commit, initial exam/radiology appointments start. Exam appointments might be numerous, depending on student speed. Treatment plan is done after all exams are done. Treatment starts only after treatment plan is approved.

UTHSC at San Antonio, School of Dentistry

- I. Curriculum
- a. Operative Course(s):
 - i How many semesters and in what year(s) is your operative dentistry course taught?
 1. **A handskills course (3 sessions) is conducted in the first semester of the DS1 year with an introduction to restorative dentistry.**
 2. **The restorative dentistry has been renamed as a module and is combined with fixed prosthodontics. The module for DS1s starts in the spring semester.**

3. ***The freshman module in the Spring semester alternates every other week with the DS2 until the last six weeks of the spring when the DS2 students go to the clinic. (We think)***
 4. ***The DS2 meet every week in the fall semester then transition to every other week in the second semester until the last six weeks. There is a lecture course given in the Fall semester of the DS3 year.***
 5. ***There is a Junior Operative didactic and clinical course. The Didactic course is limited to the fall semester course and the clinical course is yearlong.***
- ii How many hours per week are devoted to the operative dentistry course?
1. ***One hour of lecture followed by three hours of lab for each session of the preclinical courses, junior lectures are 1 hour each session. Junior clinic varies according to the patients being treated.***
- iii What is/are the course title(s)?
1. ***Fundamentals of Restorative Dentistry***
- iv How many credit hours are given for each course?
1. ***I have no idea***
 2. ***Junior Clinical Operative is 4.5 credit hours***
- v What didactic resources does your Operative course(s) utilize?
1. ***Summitt's Fundamentals of Restorative Dentistry 4th Edition is Required***
 2. ***Lab manuals No***
 3. ***Course packets Postings on Canvas***
 4. ***Handouts Criteria sheets for each exercise and handouts posted on Canvas***
 5. ***Live hands-on demonstrations occasionally***
 6. ***Self-made videos (private domain) yes demonstrating exercises and techniques***
 - a. If yes, would you be willing to share?
 7. You Tube videos (public domain) ***No***
 8. Professionally-made videos (purchased for private use) ***No***
 - a. If yes, how do you like them? Who made the video(s)?
 - b. If No, would your school consider purchasing high quality videos? ***Unlikely - most that we have reviewed are too long and don't contain the content we would prefer having in them***
- vi What other resources do you provide? (Lab manuals, course packets, supplementary reading, etc.). ***Supplemental readings posted on Canvas and videotaped lectures also available in Canvas.***

- vii Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth?
 - 1. If yes, please describe. ***We use plastic situation teeth that allow us to insert artificial caries to simulate clinical situations or “puzzles” that the students have to solve.***
- viii Is there any OSCE exam in the operative course in your school? **No**
 - 1. If yes, please describe. ***We are looking into creating one.***
- b. Operative Faculty:
 - i How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? ***Faculty teaching in Operative are not dedicated exclusively to Operative. Three full time faculty are responsible for conducting the courses but they have other courses and are assigned as Core faculty in the GPGs as well. Other faculty that are conscripted to teach in the labs are currently made up of 5 part time faculty, 9 full time, and 3 volunteers.***
 - ii How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (Formal presentations, photographs, typodonts, etc.) ***The faculty attend the lectures and we have a briefing afterwards before going to labs.***
- c. How are patient treatment plans developed?
 - i Who is involved in the process? ***The 4 GPG core faculty assigned to run that group practice work with students on developing treatment plans for the patients in that group.***
 - ii How are these patients then assigned to students? ***The Group leader makes decisions on patient distribution in the group.***
 - iii How long does it take a patient to begin their actual treatment from the time of their initial contact to the school? ***Don’t know the statistics.***

Texas A&M University, College of Dentistry

- I. Curriculum
 - a. Operative Course(s):
 - i How many semesters and in what year(s) is your operative dentistry course taught? ***D1 semester 2(spring), D2 semester 1 (fall), D3 (summer), D3 (fall, spring). D4(fall, spring)***
 - ii How many hours per week are devoted to the operative dentistry course? ***D1 (spring) - 1 hour lecture, 6 hours lab (17 weeks)***

D2 (fall) - 1 hour lecture, 6 hours lab (16 weeks)

D3 (summer) – 1 hour lecture (6 weeks)

D3 (summer) – 147.5 hours available (operative as needed)

D3 (fall) – 1 hour lecture (16 weeks)

D3 (fall) – 472 hours available (operative as needed)

D3 (spring) – 501.5 hours available (operative as needed)

D4 (fall/spring) – clinic and lecture hours combined with other courses)

iii What is/are the course title(s)?

1. How many credit hours are given for each course?

See below

2. Please list the course description(s) as seen in your Bulletin.

DDS 6840 Lecture. 1 Hour. Introduction to the treatment of diseased and injured teeth; emphasis on principles of cavity preparation; principles and manipulation of restorative materials.

DDS 6844-C Lab. 2 Hour. Preclinical laboratory to accompany course 6840.

DDS 7100 Lecture. 1 Hour. Treatment of diseased and injured teeth; emphasis on principles of cavity preparation; principles and manipulation of restorative materials.

DDS 7104-C Lab. 2 Hours. Preclinical laboratory to accompany course 7100.

DDS 7084-C Lab. 1.5 Hours. Introduction to Clinical Practice. Clinic applications to accompany course 7080; including rotations through various discipline clinics, several simulations of clinical operative procedures using computer documentation, small group sessions where students participate in simulated culturally sensitive patient interviewing exercises.

DDS 8220 Lecture. 1.5 Hours. Operative Dentistry. Clinical principles of operative dentistry, the art and science of treating diseased teeth; restoration of proper tooth form, function and esthetics.

DDS 8224-C clinic. 3 Hours. Operative Dentistry. Clinical application of course DDDS 8220

D4 Information not available.

iv What didactic resources does your Operative course(s) utilize?

1. Required textbook(s)? **No**

2. Lab manuals. **Yes, both lab and lecture**

3. Course packets **No**

4. Handouts as needed to supplement course manuals **Sometimes**

5. Live hands-on demonstrations **Yes**

6. Self-made videos (private domain) **No**

a. If yes, would you be willing to share?

7. You Tube videos (public domain) **No**
 8. Professionally-made videos (purchased for private use)
 - a. If yes, how do you like them? Who made the video(s)?
 - b. If No, would your school consider purchasing high quality videos?
Very possibly.
 - v What other resources do you provide? (Lab manuals, course packets, supplementary reading, etc.).
Supplemental reading: text books, publications
 - vi Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? **Yes**
 1. If yes, please describe. **Extracted teeth exercises, ergonomic practices (being in good working positions helps develop psychomotor skills.**
 - vii Is there any OSCE exam in the operative course in your school? **No**
 1. If yes, please describe.
- b. Operative Faculty:
- i How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?
Operative labs have 6 F/T faculty and 4 P/T faculty.
Didactic portions of pre-clinical operative are taught by F/T faculty members.
 - ii How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (Formal presentations, photographs, typodonts, etc.) **Calibration of F/T and P/T faculty in pre-clinical operative courses is carried out mostly by "on the job" training.**
- c. How are patient treatment plans developed?
- i Who is involved in the process?
 - ii How are these patients then assigned to students?
 - iii How long does it take a patient to begin their actual treatment from the time of their initial contact to the school?

All patients are first seen in the Oral Diagnosis Clinic where they are examined and radiographs are taken. There it is decided whether or not they are good teaching patients. Patients deemed to be too difficult for the pre-doctoral program are referred to private practice or a graduate program such as Grad Pros, AEGD etc.

Patients deemed to be satisfactory for 3rd or 4th year students are given a thorough examination to determine needs and their records are sent to the D3 or D4 patient pool depending on severity treatment needed. A Patient Services Coordinator (PSC) will then distribute the patients to students according to requests for certain procedures from the students. D3 students just beginning

clinical appointments are given 6-8 patients having a variety of procedures, hopefully in each discipline that will start them off. Later they can request patients according to needed procedures.

Once the student is assigned the patient, the student then takes the patient through a series of consultations with the various departments. When the consultations are completed and the procedures required for that patient are finalized, the student meets with his/her Group Leader and together they phase and sequence the procedures into a treatment plan.

The time necessary from the patients' initial visit with Oral Diagnosis to beginning of treatment can vary from a week to 3-4 weeks depending on the patients' availability to time necessary to complete consultations. Treatment disagreements are usually settled by faculty review of the treatment suggested.

II. Cariology

LSU, School of Dentistry

II. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol? **Yes**
 - i. If No, why not?
 - ii. If yes, is it mandatory or optional? **Optional**
 - iii. If yes, do students use them during licensing examinations? **Optional**
 - iv. If yes, please list the specific product(s), color(s), and manufacturer(s).
Blue – Snoop (Pulpdent)
- b. Does your school use any caries detection devices as part of the clinical protocol? **No**
 - i. If yes, please list the specific product(s) and manufacturer(s).
 - ii. If yes, please provide the clinical protocol.

University of Mississippi, School of Dentistry

II. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?
 - i. If No, why not? **No , try to train as they practice**
 - ii. If yes, is it mandatory or optional?
 - iii. If yes, do students use them during licensing examinations? **No**
 - iv. If yes, please list the specific product(s), color(s), and manufacturer(s).

- b. Does your school use any caries detection devices as part of the clinical protocol?
No
- i. If yes, please list the specific product(s) and manufacturer(s). **Pending approval for spring of 2019**
 - ii. If yes, please provide the clinical protocol. **None yet**

University of Oklahoma

II. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?
- i. If No, why not?
 - ii. If yes, is it mandatory or optional?
Caries detecting dye is utilized on a carious natural tooth project during the Operative 2 preclinical course. Its use in clinic is optional.
 - iii. If yes, do students use them during licensing examinations?
Not recommended
 - iv. If yes, please list the specific product(s), color(s), and manufacturer(s).
Sable Seek, Green, Ultradent.
- b. Does your school use any caries detection devices as part of the clinical protocol?
No
- i. If Yes, please list the specific product(s) and manufacturer(s).
 - ii. If yes, please provide the clinical protocol.

University of Tennessee

II. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?
- i. If No, why not?
 - ii. If yes, is it mandatory or optional? **Optional**
 - iii. If yes, do students use them during licensing examinations? **Students can use the detecting dyes on these exams as long as it is not red. It does not seem that many actually use it.**
 - iv. If yes, please list the specific product(s), color(s), and manufacturer(s).
Green Sable Seek from Ultradent
- b. Does your school use any caries detection devices as part of the clinical protocol?
- I. If yes, please list the specific product(s) and manufacturer(s). **Sable Seek from Ultradent**

- II. If yes, please provide the clinical protocol. ***Dry the tooth, place the dye for 20 seconds and then rinse off.***

UTHSC at Houston, School of Dentistry

II. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?
- i If No, why not?
No, because it stains too much. Tends to stain affected dentin in addition to infected dentin. Should not stain affected dentin but does. Some usage to detect "cracked tooth syndrome"
 - ii If yes, is it mandatory or optional? ***N/A***
 - iii If yes, do students use them during licensing examinations? ***N/A***
 - iv If yes, please list the specific product(s), color(s), and manufacturer(s).
Ultradent – sable seek caries indicator
- b. Does your school use any caries detection devices as part of the clinical protocol?
- i If yes, please list the specific product(s) and manufacturer(s).
Intraoral camera following ICDAS classification education system. Soprolife camera.
 - ii If yes, please provide the clinical protocol.
During treatment planning appointment, it is suggested for the student to use but not followed by all faculty, not mandatory.

UTHSC at San Antonio, School of Dentistry

II. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol? ***We introduce it but don't push it.***
- i If No, why not?
 - ii If yes, is it mandatory or optional? ***Optional in clinic***
 - iii If yes, do students use them during licensing examinations? ***WREB doesn't use it.***
 - iv If yes, please list the specific product(s), color(s), and manufacturer(s).
Cari-D-Tect by Gresco

- b. Does your school use any caries detection devices as part of the clinical protocol?

No

- i. If yes, please list the specific product(s) and manufacturer(s).
- ii. If yes, please provide the clinical protocol.

Texas A&M University, College of Dentistry

II. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol? **Yes SnOOp used in clinic**

- i. If No, why not? **Not many exercises are done on extracted teeth.**
- ii. If yes, is it mandatory or optional?
- iii. If yes, do students use them during licensing examinations? **No. Not for WREB and not for mock boards.**
- iv. If yes, please list the specific product(s), color(s), and manufacturer(s).

- b. Does your school use any caries detection devices as part of the clinical protocol?

Yes.

- i. If yes, please list the specific product(s) and manufacturer(s).
SnOOp – Pulpdent Corp.
- ii. If yes, please provide the clinical protocol.

III. Materials and Techniques

LSU School of Dentistry

III. Materials and Techniques

- a. Isolation:

- i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods? **Yes**

1. If yes, please describe.

Isodry/Isovac system

Svedopter Saliva Ejector isolation

- b. Adhesives:

- i. How many composite bonding systems do you have in your pre-doctoral clinic?

1. List each system by classification, product name, and manufacturer:

- a. 4th generation – Three-step Etch-Rinse **Yes**

- i Etch. Rinse. Prime. Bond.
 - 1. **32% Phosphoric Acid Etch; 3m- Adper Scotchbond Primer and Adhesive.**
 - b. 5th generation – Two-step Etch-Rinse **No**
 - i Etch. Rinse. (Prime+Bond).
 - 1. e.g. – Prime & Bond (Dentsply)
 - c. 6th generation – Two-step Self-etch **No**
 - i (Etch+Prime). Bond.
 - 1. e.g. – Clearfil SE (Kuraray)
 - d. 7th generation – One-step Self-etch **No**
 - i (Etch+Prime+Bond).
 - 1. e.g. – Prompt L Pop (3M ESPE)
 - e. 8th generation – One-step Self-etch **No**
 - i (Etch+Prime+Bond).
 - 1. e.g. – Futura bond DC (VOCO America)
 - 2. Are your students and faculty provided with specific indications and guidelines for their use? **YES**
 - a. If yes, please provide the indications and guidelines.
Use standard 3 step/total etch protocol for composite resin bonding of direct restorations.
- c. Light Curing
 - i. When is light curing taught in the curriculum and how much time is devoted to the topic?
D1 – Fundamentals of Operative Dentistry – 2 hour lecture with faculty supervision in Sim-Lab
D2 - Introduction to Clinical Operative Dentistry – 1 hour refresher lecture with faculty supervision in Sim-Lab and Clinic
D3 – Advanced Clinical Operative Dentistry – 1 hour refresher lecture with 2 hour Topic Forum EBD presentation of 4 articles on the subject. Clinic mentoring and supervision by faculty prn.
 - ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? **It is purchased.**
 - iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? **It is purchased.**
 - iv. What specific curing light(s) do you have available?
1. Please list name(s) and manufacturer(s) **SDI Radian PLUS**
 - v. What protocols are in place to ensure the proper use of your light curing system(s)?

Do NOT LOOK AT THE BLUE LIGHT (even with protective orange goggles). Even low levels of exposure to blue light have been found to affect your vision. So,

MINIMIZE EXPOSURE WHENEVER POSSIBLE. Do NOT DIRECT the light directed at anyone's eyes in order to avoid accidental exposure of them with the intense blue light. Stabilize the curing tip by holding the sides of the housing with your fingers at the recommended distance from the resin you are curing. This will allow you to not have the intense blue light reflected back at you or your assistants during the unit's operation. USE PROTECTIVE ORANGE FILTERS AND GOGGLES WHENEVER POSSIBLE. Do NOT AIM LIGHT AT GINGIVA or other soft tissue (Tissue will heat up). Move tip to new location and keep exposure to 20 seconds and wait a minute between exposures in areas near soft tissue. If more time is needed in same area, wait 2-3 minutes. This allows housing of light to cool. Otherwise, housing will get hotter and hotter. Do NOT REST light on patient's lip. Conduction of heat from solid light housing to lip is faster than by way of air space between lens and tissue (hard or soft). Rubber Dams do NOT prevent lips from being burned by light. ALL noted burns in clinic have occurred BENEATH RUBBER DAM.

- vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)?

After cleaning lens, use the SDI supplied radiometer to check for proper output from the curing light. A part-time faculty member also brings his radiometer so we can double check the results. Do NOT allow cleaning agents to enter unit (short circuit is possible)... Wipe off with cloth with cleaning agent on it. History of cataract surgery may suggest person is sensitive to light exposure and the use of protective Orange goggles (which remove blue light) is recommended. Use plastic barriers supplied.

University of Mississippi, School of Dentistry

III. Materials and Techniques

a. Isolation:

- i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods? **Yes, rubber dam or isolate except class 5's**

b. Adhesives:

- i. How many composite bonding systems do you have in your pre-doctoral clinic? **Two**
1. List each system by classification, product name, and manufacturer:
 - a. 4th generation – Three-step Etch-Rinse
 - i Etch. Rinse. Prime. Bond.
 1. e.g. – Optibond (Kerr)
 - b. 5th generation – Two-step Etch-Rinse
 - i Etch. Rinse. (Prime+Bond).

1. e.g. – Prime & Bond (Dentsply)
 2. voco
2. Are your students and faculty provided with specific indications and guidelines for their use? **No, varies with faculty**
If yes, please provide the indications and guidelines.
- c. Light Curing
- i When is light curing taught in the curriculum and how much time is devoted to the topic? **Esthics (composite course)**
 - ii Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? **On unit**
 - iii Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? **School provided**
 - iv What specific curing light(s) do you have available?
 1. Please list name(s) and manufacturer(s)
Ultradent, and adec (on units)
 - v What protocols are in place to ensure the proper use of your light curing system(s)? **See below**
 - vi What protocols are in place to ensure the proper maintenance of your light curing system(s)? **Checked yearly**

University of Oklahoma

III. Materials and Techniques

a. Isolation:

- i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?

1. If yes, please describe.

We utilized Isovac units that provide isolation and suction.

Beyond that, we utilize cotton roll and dri-angles for isolation.

b. Adhesives:

- i. How many composite bonding systems do you have in your pre-doctoral clinic?

1. List each system by classification, product name, and manufacturer:

- a. 4th generation – Three-step Etch-Rinse

- i. Etch. Rinse. Prime. Bond.

1. e.g. – Optibond (Kerr)

- b. 5th generation – Two-step Etch-Rinse

- i. Etch. Rinse. (Prime+Bond).
 - 1. e.g. – Prime & Bond (Dentsply)
- c. 6th generation – Two-step Self-etch
 - i. (Etch+Prime). Bond.
 - 1. e.g. – Clearfil SE (Kuraray)
- d. 7th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 - 1. e.g. – Prompt L Pop (3M ESPE)
- e. 8th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 - 1. e.g. – Futura bond DC (VOCO America)

We use one bonding system for operative procedures. Optibond Solo Plus (Kerr), Two step Etch and Rinse.

- 2. Are your students and faculty provided with specific indications and guidelines for their use?
 - a. If yes, please provide the indications and guidelines.
***Yes, we provide a concise instruction sheet for its use.
(see attachment below)***

Department of Operative Dentistry

Pulp Protection and Bonding Protocol

Rev. 3/2/2018

Conservative Amalgam Preparations

Isolation

Preparation

Place matrix system on tooth (Apply Liners or bases as needed)

Apply Gluma Desensitizer (Never apply directly on or near the pulp tissue)

Agitate with applicator for thirty seconds

Rinse thoroughly and dry

Insert Amalgam

Large Amalgam Preparations – Bonded Amalgam Technique

Isolation

Preparation

Clean the tooth with pumice/chlorhexidine slurry

Apply Liners or bases as needed

CaOH (Ultrablend) - in areas within 0.5mm of the pulp (Cover with Vitrebond)

RMGI (Vitrebond) – in areas 0.5 - 1.5 mm of the pulp

Place Retentive pins if indicated (Missing one or more major cusp)

Place matrix system on tooth (Wax internal surface of band)

Dispense 1-2 drops of Amalgambond Plus Dentin Activator (A) and apply for:

-10 seconds if the preparation involves dentin only (crown prep);

-30 seconds if both dentin and enamel are to be conditioned.

Thoroughly rinse and dry.

Apply a thin layer of Amalgambond Plus Adhesive Agent (AA) with a microbrush. Blow away puddles with a gentle air stream. Leave undisturbed for 30 seconds.

Begin trituration of amalgam at this point.

Dispense 3 drops of Amalgambond Plus Base (B) and 1 drop of Catalyst (C) into a mixing well, and mix in 1 scoop of the HPA powder. Apply a thin layer with microbrush.

Insert Amalgam immediately while the Amalgambond Plus is still uncured.

Composite Restorations

Isolation

Cavity Preparation

Clean the tooth with pumice/chlorhexidine (Cavity Cleanser by Bisco) slurry

Apply mylar matrix and wedge

Apply Liners or bases as needed

Ultrablend to areas within 0.5mm of the pulp (Always cover with Vitrebond)

Vitrebond to areas within 1.0 mm of the pulp

Place matrix system on tooth

Etch and condition the tooth with 32% phosphoric acid for 15 seconds

Rinse thoroughly and remove excess moisture with air syringe

Rewet dentin with 2% chlorhexidine digluconate. Cavity Cleanser (Bisco).

Remove excess chlorhexidine with a dry cotton pellet or brush, leave a moist dentin surface.

Apply Two Coats: Optibond Solo Plus bonding resin

Apply first coat, agitate, and rub with a microbrush for 30 seconds

Gently air-dry the first coat for 30 seconds to thin resin, evaporate alcohol & water

Apply a 2nd coat, agitate, and rub again with a microbrush for 30 seconds

Gently air-dry the 2nd coat for 30 seconds to thin resin, evaporate alcohol & water

Remove any excess or pooled bond resin with dry brush

Light cure the bonding resin for 20 seconds, then place resin composite into the preparation

- c. Light Curing
- i. When is light curing taught in the curriculum and how much time is devoted to the topic? ***Taught in the First Year Spring Operative Preclinic course. Included during a 4 hour lecture and lab session devoted to adhesive bonding technique.***
 - ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? ***Curing lights are a required purchase as part of their kit.***
 - iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? ***They use their own.***
 - iv. What specific curing light(s) do you have available?
 1. Please list name(s) and manufacturer(s)
VALO light by Ultradent
 - v. What protocols are in place to ensure the proper use of your light curing system(s)?
Students are instructed in their first year preclinical course on the proper use of their curing light.
 - vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)? ***We have radiometers in each clinic dispensary for students to check the light output. We have nothing set up to monitor if that is being done.***

University of Tennessee

III. Materials and Techniques

- a. Isolation:
 - i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?
 - a. If yes, please describe. ***Many students have purchased the DryShield for use in the clinic***
- b. Adhesives:
 - i. How many composite bonding systems do you have in your pre-doctoral clinic?
 1. List each system by classification, product name, and manufacturer:
 - a. 4th generation – Three-step Etch-Rinse
 - i. Etch. Rinse. Prime. Bond.
 1. e.g. – Optibond (Kerr)
 - b. 5th generation – Two-step Etch-Rinse
 - i. Etch. Rinse. (Prime+Bond).
 1. e.g. – Prime & Bond (Dentsply)

2. ***Optibond Solo Plus (Kerr) but we are considering switching to a Universal Bonding system.***
 - c. 6th generation – Two-step Self-etch
 - i. (Etch+Prime). Bond.
 1. e.g. – Clearfil SE (Kuraray)
 - d. 7th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 1. e.g. – Prompt L Pop (3M ESPE)
 - e. 8th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 1. e.g. – Futura bond DC (VOCO America)
 2. Are your students and faculty provided with specific indications and guidelines for their use?
 - a. If yes, please provide the indications and guidelines.
- c. Light Curing
- i. When is light curing taught in the curriculum and how much time is devoted to the topic? ***During their introduction to composite placement in the D1 year, the students are given a short lecture on light-curing safety. During the D2 Composite course, the students are given an in depth one hour lecture on light curing. In the composite lab, they are all required to be checked off on the Marc II Simulator for proper light tip placement. They all also purchase orange glasses for use while curing.***
 - ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? ***Students purchase a curing light in their D1 year that is part of their instrument kit.***
 - iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? ***Students use their own curing light.***
 - iv. What specific curing light(s) do you have available?
 - a. Please list name(s) and manufacturer(s) ***The students purchase the Kerr SmartLight***
 - v. What protocols are in place to ensure the proper use of your light curing system(s)?
 - vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)?

UTHSC at Houston, School of Dentistry

III. Materials and Techniques

- a. Isolation:
 - i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods? **Yes.**

1. If yes, please describe.

Mr. Thirsty, cotton roll isolation, Dri-angles.

b. Adhesives:

i How many composite bonding systems do you have in your pre-doctoral clinic?

1. List each system by classification, product name, and manufacturer:

a. 4th generation – Three-step Etch-Rinse

i. Etch. Rinse. Prime. Bond.

Adper Scotchbond Multipurpose Plus

b. 5th generation – Two-step Etch-Rinse

i. Etch. Rinse. (Prime+Bond).

OptiBond Solo Plus – unidose (Kerr)

c. 6th generation – Two-step Self-etch

i (Etch+Prime). Bond.

Clearfil SE Bond 2 (Kuraray)

d. 7th generation – One-step Self-etch - **No**

i. (Etch+Prime+Bond).

e.g. – Prompt L Pop (3M ESPE)

e. 8th generation – One-step Self-etch - **No**

i (Etch+Prime+Bond).

1. e.g. – Futura bond DC (VOCO America)

2. Are your students and faculty provided with specific indications and guidelines for their use? **Yes**

a. If yes, please provide the indications and guidelines.

OS+

1. Light-cured, direct restorations (Class I-V)

2. Light-cured, indirect restorations (veneers)

3. Prior to the placement of sealants following our pediatric department guidelines

4. Must be used in etch & rinse mode

5. Should be cured before placing direct restoration, but can be cured w/ cement when seating veneers

CSEB2

1. Light-cured, direct restorations (Class I-V)/selective etch or self-etch

2. Dual-cure, direct restorations (CBU) w/ DC Activator/self-etch

3. Self-cure, direct restorations (CBU) w/ DC Activator/self-etch

4. Prior to the placement of sealants following our pediatric department guidelines

5. Can be used in self-etch or selective etch mode

- c. Light Curing
- i When is light curing taught in the curriculum and how much time is devoted to the topic?
Operative 1 – 1 hour lecture
Biomaterials lab session about composites – 2 hours
Required 30 min. video and test every year as part of curing light units ensuring proper use and maintenance. Video link:
<https://www.youtube.com/watch?v=9zgzk-oY-pEw>
 - ii Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? **Comes in the required kit they purchase 1st year.**
 - iii Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? **They use the same lights that come in their required to purchase kits.**
 - iv What specific curing light(s) do you have available?
 1. Please list name(s) and manufacturer(s) **Ultradent VALO CORDLESS**
 - v What protocols are in place to ensure the proper use of your light curing system(s)?
Every year all light curing units are tested with Bluephase Meter II (precise dental radiometer) for power and irradiance and students are required to watch a 30 min. video and complete a 10 question exam.
 - vi What protocols are in place to ensure the proper maintenance of your light curing system(s)? **Already described above**

UTHSC at San Antonio, School of Dentistry

III. Materials and Techniques

- a. Isolation:
 - i If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods? If yes, please describe. **Depending on the location of the lesion etcetera, students are told how to use the following aides to isolation:**
 1. **Isolite**
 2. **Optragate**
 3. **Retraction cord**
 4. **Hygoformic coil**
 5. **Dry angles and NeoDrys**
- b. Adhesives:
 - i How many composite bonding systems do you have in your pre-doctoral clinic? **2 for direct restorations**

1. List each system by classification, product name, and manufacturer:
 - a. 4th generation – Three-step Etch-Rinse
 - i Etch. Rinse. Prime. Bond. **ScotchBond Multipurpose Plus**
 - b. 5th generation – Two-step Etch-Rinse
 - i Etch. Rinse. (Prime+Bond).
 1. e.g. – Prime & Bond (Dentsply)
 - c. 6th generation – Two-step Self-etch
 - i (Etch+Prime). Bond.
 1. e.g. – Clearfil SE (Kuraray)
 - d. 7th generation – One-step Self-etch
 - ii (Etch+Prime+Bond).
 1. e.g. – Prompt L Pop (3M ESPE)
 - e. 8th generation – One-step Self-etch
 - i (Etch+Prime+Bond).
 1. e.g. – Futura bond DC (VOCO America)
 2. **We use the Universal adhesive All Bond Universal using the total etch technique and Conespris scrub.**
 2. Are your students and faculty provided with specific indications and guidelines for their use? **Students are warned about the incompatibilities of some adhesives with dual cure resin composites but we have chosen products that are compatible.**
 - a. If yes, please provide the indications and guidelines.
- c. Light Curing
 - i When is light curing taught in the curriculum and how much time is devoted to the topic? **Freshman, Sophomore and Junior years. Total of 3 hours plus a reading assignment.**
 - ii Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? **They are provided.**
 - iii Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? **They are provided**
 - iv What specific curing light(s) do you have available?
 1. Please list name(s) and manufacturer(s) **Valo by Ultradent**
 - v What protocols are in place to ensure the proper use of your light curing system(s)? **None outside of directions and safety information given to students during their instruction.**
 - vi What protocols are in place to ensure the proper maintenance of your light curing system(s)? **Do not know**

Texas A&M University, College of Dentistry

III. Materials and Techniques

a. Isolation:

- i If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods? **Yes.**

- 1. If yes, please describe.

D4 may use Isolite isolation.

D3 with instructor approval may use DriGard and cotton roll isolation or change from composite to amalgam.

b. Adhesives:

- i How many composite bonding systems do you have in your pre-doctoral clinic? **3.**

- 1. List each system by classification, product name, and manufacturer:

- a. 4th generation – Three-step Etch-Rinse

- i Etch. Rinse. Prime. Bond.

- 1. ***OptiBond FL - Kerr***

- 2. ***AllBond 3 - Bisco Dental***

- b. 5th generation – Two-step Etch-Rinse

- i Etch. Rinse. (Prime+Bond).

- 1. ***OptiBond Solo Plus - Kerr***

- c. 6th generation – Two-step Self-etch **No.**

- i (Etch+Prime). Bond.

- 1. e.g. – Clearfil SE (Kuraray)

- d. 7th generation – One-step Self-etch **No.**

- i (Etch+Prime+Bond).

- 1. e.g. – Prompt L Pop (3M ESPE)

- e. 8th generation – One-step Self-etch **No.**

- ii (Etch+Prime+Bond).

- 1. e.g. – Futura bond DC (VOCO America)

- 2. Are your students and faculty provided with specific indications and guidelines for their use? **Yes.**

- a. If yes, please provide the indications and guidelines.

OptoBond Solo Plus may be used only with light cured composites. OptiBond FL and AllBond 3 may be used with both self-cured and light cured composites.

c. Light Curing

- i When is light curing taught in the curriculum and how much time is devoted to the topic? ***D1 spring and D2 fall semester. 1 hour lectures and in labs. D3 – 1 hour lecture including curing lights and curing techniques.***

- ii Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? ***Curing lights are provided.***
- iii Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? ***Curing lights are provided for clinic. Students are not allowed to use personal lights.***
- iv What specific curing light(s) do you have available?
 - 1. Please list name(s) and manufacturer(s)
Pre-clinical – Elipar 2500 3M ESPE Quartz/halogen
Clinical – Smart Lite Focus Densply LED
- v What protocols are in place to ensure the proper use of your light curing system(s)? ***Students are observed using the lights and instructed by instructors on proper direction of the light tip and proper distance of the light tip from the target. Students are taught to cure from several different directions and for the proper time of exposure. This is a continual exercise since students often get distracted when curing and their technique gets sloppy.***
- vi What protocols are in place to ensure the proper maintenance of your light curing system(s)? ***Dispensary personnel regularly check irradiance with radiometer those lights used in clinic and lights are examined for condition of the light tips. Lights used in lab are not checked due to age and soon replacement.***

IV. Student Assessment

LSU School of Dentistry

IV. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission?
 - i If yes, describe what is required of the applicant. ***Chalk carving***
- b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)
 - i Are all students who fail eligible for remediation? ***Yes***
 - 1. If No, what circumstances would not allow remediation?
 - ii Do all students eventually pass remediation? ***No***
 - 1. If No, what happens to them? ***Upon voluntary resignation, the student has a very good chance for re-admission.***
 - iii How do you remediate students who fail the didactic program? ***Depending upon the failure appropriate projects, reading(s), and testing approved by the APAC (Academic Performance Committee) are required.***

- iv How do you remediate students who fail the laboratory simulation program?
Same as above.
- c. How do clinical procedures get evaluated? (Pass/fail, grading scale, etc.)
 - i Do you use a clinical evaluation (grading) system that is integrated with axiUm?
 - 1. If yes, please describe. **We have a 4-3-2-1 Axiom grading/evaluation system that matches the LSUHSC grading system of A-B-C-F. There are also NCR grading forms for each procedure that reflect the numerical grade for the procedure as well as feedback boxes faculty are instructed to use. The student gets one copy and the faculty gives the Course Director the original (back up).**
 - 2. If No, what system do you use to collect the data?
- d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?
 - i If Yes, how long is the specified time for the following:
 - 3. Class II amalgam – **2 hours (D1 year)**
 - 4. Class II composite - **2 hours (D1 year)**
 - 5. Full crown preparation - **2 hours (D2 year)**
 - ii If yes, is there an assessment at the end of the specified time? **Yes**
 - 6. If yes, is this assessment a factor in the project or course grade? **Yes**
 - iii If yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?
- e. How many times do you assess your students for a particular operative procedure (i.e., Class II composite) **after** they have taken the course teaching that procedure?

D2 - Introduction to Clinical Operative Dentistry:

CI1- Composite- After the student has completed (3) three Class 1 occlusal composite resins, the student will be allowed to prepare and place a conservative Class 1 composite involving the occlusal surface on a patient as a competency examination.

CI1 - Amalgam - After the student has completed three (3) Class 1 occlusal amalgam restorations, the student will be allowed to prepare and place a Class 1 amalgam restoration involving the occlusal surface on a patient as a competency examination.

D3 – Advanced Clinical Operative Dentistry:

CI2 Composite- After the student has successfully completed 4 complex Class II composite restorations, or at the discretion of the course director, the student will be allowed to prepare and place a Class II composite restoration on a patient for a competency examination. CI2 Amalgam- After the student has successfully completed 4 complex Class II amalgam restorations, or at the discretion of the course director, the student will be allowed to prepare and place a Class II amalgam restoration on a patient as a competency examination. CI3 Composite- After the student has successfully completed 4 complex Class III or Class IV composite restorations, or at the discretion of the course director, the student will be allowed to prepare and place a Class III or IV composite restoration on a patient for a competency examination.

- i How is it assessed (manikin vs. live patient)? **Live patient.**
 - ii When do these assessments occur? **Answered in previous statement above.**
- f. Does your school provide mock boards for your students?
 - i If yes, how are patients obtained? **D4 Student provides a patient from their mini-clinic.**
 - ii If yes, provide details on how mock boards are conducted. **We prepare them for the ADEX Clinical Exam. The Senior Class has a Mock Board Day in Late January. Half of the Class has a "live patient" restorative procedure to complete in 2.5 hours. The remainder of the class has to be their assistant. It is reversed in the afternoon session. Students can select either the Class 2 amalgam/resin restoration or the Class III resin restoration in the 2.5 hour period. The students are provided all ADEX forms and are expected to use and complete them as per ADEX rules. Faculty provides the stressful protocol and rules environment during the 2.5 hours they have to complete the restoration.**
 - iii If yes, is passing the mock boards a requirement for taking the actual board exam? **No**
 - iv If yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? **No**
 - v If yes, has your school done an analysis or study on the effectiveness of conducting mock boards? **Not an "official" study or analysis. Unofficial analysis and conclusions are made.**

University of Mississippi, School of Dentistry

IV. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission? **Not at the present time: Research project beginning designed to evaluate motivation of a potential students.**
 - i If yes, describe what is required of the applicant. **Examination**
- b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)
Decisions for remediation ultimately come from the Student Evaluation and Promotions Committee, SEPC. Once the committee has recommended remediation for the student, the committee will discuss the remediation with the course coordinator. If the course coordinator is unable to provide remediation, the departmental chair will discuss remediation with other faculty members.
 - i Are all students who fail eligible for remediation? **No**
 - 1. If No, what circumstances would not allow remediation?
If a student is currently on probation or if the student has failed "enough classes", remediation may not be offered as an option.

(didactic or laboratory) they may be asked to repeat the year or may be dismissed from the program.

- ii Do all students eventually pass remediation? **No**
 - 1. If No, what happens to them?
The issue is referred to the SEPC and the final decision may be based on factors that allowed initial remediation. Some cases the student is allowed to proceed to the next year but has to retake the course that was failed. Other cases have resulted in repeat of the year or dismissal from the program.
 - iii How do you remediate students who fail the didactic program?
 - 1. *There is no standardized method in the department. Each course coordinator will design a remediation program once the SEPC has made that recommendation. Remediation is designed by the course coordinator and based on what they think is appropriate for the student or students involved. Retake of final exam, retake of some quizzes and final exam, multiple meetings with coordinator to cover sessions or present sessions and/or projects in areas the student(s) had problems with, and/or other custom programs.*
 - iv How do you remediate students who fail the laboratory simulation program?
 - 1. *Case by case: Most often, the student will repeat the laboratory exercise that resulted in a failure. If successful, they are generally given a grade of 70 for the exercise. Some courses have in their syllabus that a final laboratory grade of 70 will be given if there is a failure that is successfully remediated. Other courses, Caries I Spring Semester, are designed where each practical is a percentage of the grade and the failing grade is calculated into the overall grade for the laboratory course. Recently one faculty designed remediation within the course. Each graded exercise must be passed or it has to be remediated prior to attempting the next exercise. If the remediation is not successful, they may complete the course but will have a failing grade in the laboratory course as indicated in the syllabus, every exercise must be passed to pass the course*
- c. How do clinical procedures get evaluated? (Pass/fail, grading scale, etc.)
Trying to get all courses and procedures back to grades. Generally, grades are on paper rubrics or through Canvas grading program, depending on the course director set-up.
- i Do you use a clinical evaluation (grading) system that is integrated with axiUm? **No**
 - 1. If yes, please describe.
 - 2. If No, what system do you use to collect the data?
We now have a grading package designed by UMMC's Dept of Information Systems. It allows us to enter rubrics for every

procedure including competencies and then automatically calculates grades based on the parameters placed in the rubrics themselves. This package is also connected to the clinical EPIC Wisdom.

- d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?

No set time is given for daily performance.

- i If Yes, how long is the specified time for the following:
 - 1. Class II amalgam ***No specified time given for daily work***
 - 2. Class II composite ***No specified time given for daily work***
 - 3. Full crown preparation ***Not necessarily due at the end of the session in some crown courses, but must be graded and successful to pass laboratory grade portion of course. Other preparation courses, there are daily time limitations.***

 - ii If yes, is there an assessment at the end of the specified time?
Generally, the daily grades are not factored in to the daily grade. The grades are from practicals.
 - 1. If yes, is this assessment a factor in the project or course grade?
 - iii If yes, at what point does this time requirement begin? ***When the student does their first preparations/restorations or closer to entering the clinic?***
- e. How many times do you assess your students for a particular operative procedure (i.e., CI II composite) after they have taken the course teaching that procedure?
Both amalgam and composite: Pre-clinical: The class 1 has 1 practical, the class II has 2 practicals (one basic prep and fill and one practical on back-to-back class II's), Class III has 1 practical. Clinical years: practical each.
- i How is it assessed (manikin vs. live patient)?
Pre-clinical on manikin/ clinical on patient.
 - ii When do these assessments occur?
Spring of D-1 year
- f. Does your school provide mock boards for your students? ***Discontinued***
- i If yes, how are patients obtained?
 - ii If yes, provide details on how mock boards are conducted.
 - iii If yes, is passing the mock boards a requirement for taking the actual board exam?
 - iv If yes, does your school substitute manikin mock boards in lieu of patient-based mock boards?
 - v If yes, has your school done an analysis or study on the effectiveness of conducting mock boards?

University of Oklahoma

IV. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission?
 - i If yes, describe what is required of the applicant. **No.**
- b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)
 - i Are all students who fail eligible for remediation?
 1. If No, what circumstances would not allow remediation?
No, when the degree of failure is deemed by the course director to be so severe that there would not be adequate time to remediate the student.
 - ii Do all students eventually pass remediation?
 1. If No, what happens to them?
No. They will be required to repeat the course (in case of preclinical lab courses this will mean repeating the year).

Our College's D/F Protocol

To satisfy degree requirements, all "D" grades must be remediated by enrolling in a special studies remediation course, the contents of which are determined by the course director. If the student satisfactorily completes the requirements for the special studies course, a grade of "S" will be recorded. If the student does not satisfactorily complete the requirements, the remediation is not considered successful and the student receives a grade of Unsatisfactory (U) for the special studies course and must repeat the course in its entirety. This can result in the student repeating the year. Didactic and preclinical courses in which an "F" grade is received must be retaken and the student will be re-enrolled in the course. The course director recommends a format by which the course may be retaken, subject to approval of the Periodic Review Committee. This can result in the student repeating the year

- iii How do you remediate students who fail the didactic program?
Allow a certain period of time to review course material and then take a comprehensive examination over the material.
- iv How do you remediate students who fail the laboratory simulation program?
During the first year course, students remediate each exam soon after the failed attempt. If they fail a second time they are

required to work with one of our instructors to identify their specific problems and complete additional projects on the specific procedure prior to retaking the remediation exam.-During our second year preclinical course there is no remediation of the course. See Protocol above.

- c. How do clinical procedures get evaluated? (Pass/fail, grading scale, etc.)
- i Do you use a clinical evaluation (grading) system that is integrated with axiUm?
 1. If yes, please describe.
 2. If No, what system do you use to collect the data?
- Clinical procedures are graded on a grading scale. We are currently working on converting from paper evaluation forms to Axiom grading.***
- d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?
- i If Yes, how long is the specified time for the following:
 1. Class II amalgam
 2. Class II composite
 3. Full crown preparation
 - ii If yes, is there an assessment at the end of the specified time?
 1. If yes, is this assessment a factor in the project or course grade?
 - iii If yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic. ***The students have approximately 3 hours to complete their daily preclinic procedures. This may be one or two preparations and insertions in a 3 hour session. They start out with one procedure during the courses, and as they progress through the courses, they may be asked to prepare and restore two or more teeth in the three-hour period. There is no specific time period for each type of procedure.***
- e. How many times do you assess your students for a particular operative procedure (i.e., CI composite) after they have taken the course teaching that procedure?
- i How is it assessed (manikin vs. live patient)?
 - ii When do these assessments occur?

For Class II resins or amalgams

Preclinic course procedure assessments - 1st/2nd years:

Preclinical simulations: Class2 Amalgam -3 times

Class2 Resin-1 time

Class 3 Resin- 2 times

Clinical (live patients) – 3rd/4th years

Class 2-6 times

(Amalgam or Resin)

- f. Does your school provide mock boards for your students?
 - i If yes, how are patients obtained?
 - ii If yes, provide details on how mock boards are conducted.
 - iii If yes, is passing the mock boards a requirement for taking the actual board exam?
 - iv If yes, does your school substitute manikin mock boards in lieu of patient-based mock boards?
 - v If yes, has your school done an analysis or study on the effectiveness of conducting mock boards?

Yes, patients come from our school's patients of records.

2 clinic sessions are designated for operative and perio procedures.

GPD's are assigned to students outside of His/Her Bay

Testing agency's criteria and grade forms are used to evaluate performance.

No. Passing mock boards is not a requirement for taking actual board exams.

No. All mock board exams are completed on live patients

To my knowledge an analysis has not been done. However, I believe that just going through all of the actual paperwork and rules for the exam is very beneficial.

University of Tennessee

IV. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission? **No**
 - i If yes, describe what is required of the applicant.
- b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)
 - i Are all students who fail eligible for remediation? **Yes**
 - 1. If No, what circumstances would not allow remediation?
 - ii Do all students eventually pass remediation?
Yes, however that maybe changing in the future.
 - iii How do you remediate students who fail the didactic program? It is at the discretion of the course director. In cases where the course spans over an entire year, some students have to repeat the year.
 - iv How do you remediate students who fail the laboratory simulation program?
Retake the practical until pass

- c. How do clinical procedures get evaluated? (Pass/fail, grading scale, etc.)
- i Do you use a clinical evaluation (grading) system that is integrated with axiUm?
 1. If yes, please describe. There is a grading scale of A, B, C, D and F. Pass and Fail grades are indicated for competencies.
 2. If No, what system do you use to collect the data?
- d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?
- i If Yes, how long is the specified time for the following:
 1. Class II amalgam **1:30 hours for practical**
 2. Class II composite **1:30 hours for practical**
 3. Full crown preparation
 - ii If yes, is there an assessment at the end of the specified time?

Yes

 1. If yes, is this assessment a factor in the project or course grade? **No**
 - iii If yes, at what point does this time requirement begin?
When the student does their first preparations/restorations or closer to entering the clinic?
Multiple time during the course and one final exam at the end of the course.
- e. How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure?
- i How is it assessed (manikin vs. live patient)? **Live patient**
 - ii When do these assessments occur? **All D3 students must do their first five operative procedures with an Operative instructor. A competency exam can only be attempted after a minimum of 5 Class II and 5 Class III restorations have been done in the clinic. Students can be referred for remediation at any time to a designated faculty member.**
- f. Does your school provide mock boards for your students?
- i If yes, how are patients obtained? **Students select their own patients.**
 - ii If yes, provide details on how mock boards are conducted.
Two Sections of Mock Boards; Manikin & Patient
Manikin Based is conducted in the ADEX format. Only difference is students are given five total hours for Fixed Pros and Endo instead of the seven hours for an ADEX exam. For students not taking an ADEX exam, their criteria are adjusted to the regional board they intend to take.

Patient Based is conducted in the ADEX format and the same allotted time period. Two restorations. Only difference from ADEX criteria is students are required to complete either a Cl II or a Cl III plus a second restoration of

another class. The second restoration may not be the same class as the first restoration selected. At least one of the restorations must be restored with composite. Both restorations must involve teeth with existing caries.

- iii If yes, is passing the mock boards a requirement for taking the actual board exam?

Yes, for taking the early board exam. Not for later exams. The Mock Board is a portion of a "Professionalism Course" grade. Failure of any part of the Mock Board results in a ten-point reduction in this course grade. Successful remediation of the Mock Board will result in the student regaining that ten points but they are still not allowed to take the initial Regional Board Exam. If they pass one section of the Mock Board but not the other, they are allowed to take that section of the early Regional Board. i.e. if they pass all of the manikin portion but not the patient part, they may take the manikin part early but not the patient.

- iv If yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? **Not at this time but it is under consideration.**
- v If yes, has your school done an analysis or study on the effectiveness of conducting mock boards? **We have done a study to look at overall first time pass rates. The results of this study indicated that more emphasis should be made on the Mock Board as well as adding multiple required practice sessions prior to the Mock and the Regional Board exams.**

UTHSC at Houston, School of Dentistry

IV. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission? **Not for regular DDS program. Yes for advanced standing program (2nd, 3rd, and 4^h years)**
 - i If yes, describe what is required of the applicant.
Rubber dam placement.
Class II preparation for amalgam placement.
Class II amalgam restoration.
Gold crown prep on lower molar.
- b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.) **No departmental policy, but there is school wide policy as noted in the student handbook: remediation may be done at discretion of course director**

following syllabus guidelines and if the Student Promotion and Evaluation committee recommends it.

- i Are all students who fail eligible for remediation?

Depends on course and syllabi.

- 2. If No, what circumstances would not allow remediation?

If syllabus does not allow. Example: dental anatomy lab course only allows remediation of specific wax-ups. Last wax-up of the course cannot be remediated.

- ii Do all students eventually pass remediation?

No.

- 3. If No, what happens to them?

Dismissal can occur.

- iii How do you remediate students who fail the didactic program?

Repeat the year usually.

- iv How do you remediate students who fail the laboratory simulation program?

Repeat the year usually, but we have remediated by repeating the lab portion only.

- c. How do clinical procedures get evaluated? (Pass/fail, grading scale, etc.)

Grading scale 1 – 5.

- i Do you use a clinical evaluation (grading) system that is integrated with axiUm?

Clinical competency grading screen:

Add/Edit Evaluation - Patient, Bogus (507500)

Evaluation Information
 Provider: SS3999 Date: 09/27/2018
 Discipline: REST Form: OPCMP4 Competency

Academic Information
 Evaluator: Instructor
 Instructor: Gardner, Amity

Buttons: OK, Cancel

Question	Grade
Critical Errors	
Fails to remove appropriate caries from:	
Active carious lesion in enamel	
Infected or affected dentin	
Infected dentin more than 0.5mm f/ pulp	
Preparation grossly overextended	
Visibly open proximal contact	
Significant open margin(s)	
Pt. treatment > 15 min past clinic time	

Grade	Description
0	No grade, but procedure credit
1	Failure - Unsatisfactory
2	Poor - Below passing
3	Acceptable

Time (Hrs): Total RVU: 3.00 View Other

Procedure	Site	Surf.	Stat.	Description	RVU	Question	Grade	User	Other Forms
D2392.1	4	DO	C	****Preparation	0.00	Preparation - outline and extension			
					0.00	Preparation - internal form			
					0.00	Preparation - operative environment			
D2392.2	4	DO	C	****Restoration	3.00	Finish - anatomical form			
					0.00	Finish - margins			
					0.00	Finish - finish, function, & damage			

1. If No, what system do you use to collect the data?

N/A

a. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?

Yes but depends on course, for daily projects.

ii If Yes, how long is the specified time for the following:

1. Class II amalgam - **usually as long as they are all finished before the day of the practical.**
2. Class II composite - **same**
3. Full crown preparation - **same**

iii If yes, is there an assessment at the end of the specified time? - **each project is graded as completed.**

1. If yes, is this assessment a factor in the project or course grade? - **Yes, but it is a completion grade. As long as they complete all projects, they receive that grade percentage, regardless of quality of work.**

iv If yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic? **Each block of exercises is approximately 4 to 6 weeks – during the entire semester.**

- b. How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure?
- i How is it assessed (manikin vs. live patient)?
 - Manikin – prep and final restoration***
 - Live pt – 3 step grading, prior to start procedure, final prep and restoration***
 - ii When do these assessments occur?
 - Manikin – throughout semester (for preclinic)***
 - Live patient:***
 - 3rd Year Competencies on a patient***
 - ***Class II Composite***
 - ***Class III Composite***
 - 3rd Year Competencies on a manikin***
 - ***Class II Amalgam***
 - ***Esthetic Inlay***
 - 3rd Year Skills assessment (previously “bench exam”), done in beginning of year, before starting clinic***
 - ***Class II Amalgam***
 - ***Class II Composite***
 - Live patient:***
 - 4th year Competencies on a patient***
 - ***Class II amalgam***
 - ***Class II composite***
 - ***Class III composite***
 - ***A cast onlay/inlay or indirect composite restoration***
- c. Does your school provide mock boards for your students? **Yes.**
- i If yes, how are patients obtained?
 - Students' patient families, school announcement on University online news and school's Facebook page.***
 - ii If yes, provide details on how mock boards are conducted.
 - Undergraduate clinic is shut down for 2.5 days. Mock Board is run exactly like the actual WREB exam. There is a grading area and a treatment area. Assistants help with chair decontamination, staff help with paperwork and patient workflow. Graders are calibrated faculty and the Floor Examiners are calibrated on modifications and exam paperwork. There are 3 graders for each prep and finish and the final score is done exactly how WREB scores (middle score). Endo and Pros section is run the same- exactly as the actual board exam. Grading is done using the criteria that the WREB exam uses.***
 - iii If yes, is passing the mock boards a requirement for taking the actual board exam?
 - No. Mock Board is required to pass successfully as part of their requirement for graduation.***

- iv If yes, does your school substitute manikin mock boards in lieu of patient-based mock boards?

It is run the exact same way as WREB. Patient based for operative and perio. Manikin based for endo and Pros.

- v If yes, has your school done an analysis or study on the effectiveness of conducting mock boards?

We look at our WREB pass rate each year but outside of that, we do no other analysis.

UTHSC at San Antonio, School of Dentistry

IV. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission?
 - i If yes, describe what is required of the applicant. ***That is done thorough our Internation Dentistry Program.***
- b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.) ***Didactic courses are remediable through retesting. For preclinical and clinical courses, it depends heavily upon the deficiency noted and the recommendations of the supervising faculty as to the likelihood that a short remediation period would adequately address the deficiencies. (At our school failure to successfully remediate puts a student up to be considered for dismissal)***
 - i Are all students who fail eligible for remediation? ***No see note above and if there are numerous deficiencies in more than one area, repetition of the year or dismissal are more likely.***
 - 1. If No, what circumstances would not allow remediation?
 - ii Do all students eventually pass remediation? ***No***
 - 1. If No, what happens to them? ***They are considered for dismissal***
 - iii How do you remediate students who fail the didactic program? ***Retest after students answer and study the learning objectives for the course, which created the basis from which our test questions are generated.***
 - iv How do you remediate students who fail the laboratory simulation program? ***Each student is evaluated as to their unique problem areas. A remediation curriculum is created to address those weaknesses and then after they have had time to address those weaknesses, they are allowed to retest.***
- c. How do clinical procedures get evaluated? (Pass/fail, grading scale, etc.) ***Students are given a grade based on their experience (by earning points for each procedure) and by progress assessment, examinations which are timed examination where they must work independently.***

- i Do you use a clinical evaluation (grading) system that is integrated with axiUm? ***AxiUm completion codes are how we assign experience points to students. For the progress assessments, we use a paper evaluation form with the grading criteria listed on it.***
 - 1. If yes, please describe.
 - 2. If No, what system do you use to collect the data?
- d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?
 - i If Yes, how long is the specified time for the following:
 - 1. Class II amalgam ***1 hour 10 min (DS 2)***
 - 2. Class II composite ***1 hour 10 min (DS 2)***
 - 3. Full crown preparation ***don't know***
 - ii If yes, is there an assessment at the end of the specified time?
 - 1. If yes, is this assessment a factor in the project or course grade? ***Our daily work projects are pass /fail and we give them timeline goals. (two restorations within the 3 hour lab) We evaluate their first effort according to the recommended time and give them feedback. If they do not complete all assignments during lab, they must bring them to the lab ready for evaluation. There is not penalty for having to work outside of lab.***
 - iii If yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?
- e. How many times do you assess your students for a particular operative procedure (i.e., CI II composite) after they have taken the course teaching that procedure?
 - i How is it assessed (manikin vs. live patient)
 - ii When do these assessments occur?
 - We test class 3 composites the DS 2,3 and 4th years***
 - We test class 2 composites the DS 2,3 and 4th years***
 - We test Class 1 amalgams the the DS 1 and 2 years***
 - We test Class 2 amalgams in the DS 2 year.***
- f. Does your school provide mock boards for your students? Yes
 - i If yes, how are patients obtained? ***Existing pt pool and screening new pts for Boards***
 - ii If yes, provide details on how mock boards are conducted. ***Restorative and Perio exam is conducted at the school for seniors simulating WREB conditions with floor examiners and grading examiners isolated in a restricted area of clinic***
 - iii If yes, is passing the mock boards a requirement for taking the actual board exam? ***No***
 - iv If yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? ***No***
 - v If yes, has your school done an analysis or study on the effectiveness of conducting mock boards? ***No, but the Mock Board is given credit if the WREB examination rate is high. (No credit to the Operative faculty)***

Texas A&M University, College of Dentistry

IV. Student Assessment

a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission? **No.**

i If yes, describe what is required of the applicant.

b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)

Remediation policies are presented in each course syllabus. Not all courses have the same policy for remediation. DDS 6840, 6844, 7100, and 7104 are remediable only by repeating the year. DDS 7084 is a pass/fail course. Students are remediated by making up missed classes coordinated by the Course Director. This is routinely done. DDS 8220 is remediable if approved by the Student Promotion Committee by taking and passing a comprehensive exam focusing on student's weaknesses as identified by evaluating his performance in ExamSoft. Student will also complete a research paper on identified weakness. DDS 8224-C may be remediable by successful completion of Competency Exams during the summer session. Failure to complete this requirement will result in repeating the year if approved by the Student Promotion Committee

i Are all students who fail eligible for remediation? **No.**

1. If No, what circumstances would not allow remediation?

The individual student's situation in some cases will be reviewed by the Student Promotions Committee to determine if remediation will be allowed.

ii Do all students eventually pass remediation? **No.**

1. If No, what happens to them?

Dismissed from school.

iii How do you remediate students who fail the didactic program?

Where remediation is allowed, usually some sort of make-up exam is required to be taken and passed.

iv How do you remediate students who fail the laboratory simulation program?

Remediating lab courses is usually accomplished by repeating the year since there is no time in the class schedule to allow remediation.

c. How do clinical procedures get evaluated? (Pass/fail, grading scale, etc.)

i Do you use a clinical evaluation (grading) system that is integrated with axiUm? **Yes.**

1. If yes, please describe.

Evaluation of daily clinical procedures is done by completing the Quality Assessment (QA) form in Axiom. Daily procedures are not

graded. Competency Exams are entered into Axium as completed or in process if not successfully completed but the grading and QA are on paper.

2. If No, what system do you use to collect the data?
- d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?
 - i. If Yes, how long is the specified time for the following: **Yes /No.**
 1. Class II amalgam **Required to be completed by the end of the lab period.**
 2. Class II composite **Required to be completed by the end of the lab period.**
 3. Full crown preparation. **Not done in Operative.**
 - ii. If yes, is there an assessment at the end of the specified time? **Yes.**
 1. If yes, is this assessment a factor in the project or course grade? **Projects are Pass/Fail. If a student gets a failing evaluation, the project must be redone. Projects not completed by the end of the semester will be considered in the course grade.**
 - iii. If yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?
Time constraints are set by the length of the laboratory time.
- e. How many times do you assess your students for a particular operative procedure (i.e., CI II composite) after they have taken the course teaching that procedure?
This depends on the particular course. Lab courses usually have 4-5 or more practical exams. D3 clinical operative course has 3 competency exams.
 - i. How is it assessed (manikin vs. live patient)?
Lab courses use the manikin.
Clinical competency exams are conducted on patients.
 - ii. When do these assessments occur?
Laboratory practicals occur after the students have completed several attempts at the procedures. Clinical competency exams are taken when the student feels he is ready to perform the task.
- f. Does your school provide mock boards for your students? **Yes.**
 - i. If yes, how are patients obtained?
Students must locate their own patients. Patients may be found during an oral diagnosis rotation, or from their own patient pool, or they may trade patients among classmates.
 - ii. If yes, provide details on how mock boards are conducted.
The mock boards are conducted in the 4th year clinic and follow the exact format of WREB. Third year operative conducts competency exams loosely based on WREB format.
 - iii. If yes, is passing the mock boards a requirement for taking the actual board exam? **No.**

- iv If yes, does your school substitute manikin mock boards in lieu of patient-based mock boards?
- v If yes, has your school done an analysis or study on the effectiveness of conducting mock boards? **No.**

V. Administration

LSU, School of Dentistry

- V. Administration
 - a. Does your school have a faculty practice? **Yes** Offer practice time? **Yes**, provide details about the options available for the faculty at your school. ***Would rather not do so at this time as it is a work in progress.***
 - b. How does your school allow for mandated accommodations for students with a learning disability?
 - i For examinations and/or practical? ***Extra time***
 - ii How often have you had to deal with this issue? **Every year**
 - iii What were the learning disabilities? ***Examples of disabilities that may be associated with a need for learning accommodation include, but are not limited to learning disabilities, psychological disabilities, attention deficit disorder/attention deficit hyperactivity, chronic health impairment, hearing impairments, visual impairments, and physical impairments.***
 - iv Please provide your University/School's policy statement?

University of Mississippi, School of Dentistry

- V. Administration
 - a. Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school.
 - b. How does your school allow for mandated accommodations for students with a learning disability?
 - i For examinations and/or practical?
 - ii How often have you had to deal with this issue?
 - iii What were the learning disabilities?

University of Oklahoma

V. Administration

- a. Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school. ***Yes, we have a faculty practice. Full time faculty members are offered two half days of faculty practice time.***
- b. How does your school allow for mandated accommodations for students with a learning disability?
 - i For examinations and/or practical?
Additional time may be provided on exams for individuals with a learning disability.
 - ii How often have you had to deal with this issue?
Twice in 27 years.
 - iii What were the learning disabilities?
I do not recall.
 - iv Please provide your University/School's policy statement?

HSC Student Accommodations

Students must initiate their request for reasonable accommodation through the Disability Resource Center. Accommodations are provided on an individual basis dependent on the need for services and documentation of disability as stated in the above information. Students will meet with a staff member for an initial intake and to jointly identify appropriate accommodations. Students should update their request for accommodation at least each semester, or as needed.

Advocacy

The Disability Resource Center will provide advocacy to students in the areas of consultation, counseling and conflict resolution. In addition, DRC will provide information and referrals to community resources as well as student organizations and activities. DRC staff will assist students in interpersonal skills development and leadership opportunities. Although the DRC staff advocates for student needs, it is equally important that students learn to advocate for themselves. Students need to understand their strengths, learn to identify areas for improvement, know their rights and responsibilities, and know where to go for assistance. Early in the semester, students should schedule a meeting with their instructors, be prepared to discuss their needs and to refer the instructor to the DRC if they need additional information to assist them.

Architectural Accessibility

This includes assistance in removing architectural barriers on campus or rescheduling classes to accessible facilities.

Interpreter and Real Time Captioning Services

The Disability Resource Center will coordinate interpreter and real time captioning services on campus. We strive to provide the highest quality accommodations by hiring qualified interpreters and captionists. Students are encouraged to pre-enroll to ensure availability of interpreters and real time captionist. It is important to provide schedule information to DRC as soon as possible and to communicate with DRC staff about class schedules at pre-enrollment.

Note-Taking Services

In most situations, a system of peer volunteer note takers is used at the University. With the student's permission, the faculty member is contacted to assist in identifying a volunteer note taker in class. Students can expect a one or two-week period to pass before note taker accommodations are completely implemented. The Student Affairs office will provide two-part carbonless (NCR) paper for use by the note taker. It is the student's responsibility to pick up this NCR paper from the Student Affairs office and deliver it to the note taker. Students may also wish to tape record class lectures. Students are expected to take their own notes in class and to use the notes from the note taker as a supplementary set of notes to compare and ensure that students are getting the information correct. Note takers are not a substitute for class attendance.

E-Text Request Form

E-Text request will be accepted for students registered with the DRC who require an alternative text format due to a print or reading disability. Please select the link below and return all forms to the DRC or email drc@ou.edu

Alternative Testing

Alternative testing is provided to allow a student to accurately demonstrate his/her knowledge and achievement as opposed to measuring the impact of the disability. Testing will be coordinated in conjunction with Faculty and the designated College representative. Students are expected to uphold the academic integrity of the University. Any incidents of alleged academic misconduct discovered by the staff will be reported for action under the Academic Misconduct Code for the HSC campus.

Facilitating Accommodation Requests for Outside Entities

If a student requires accommodation on any standardized tests such as the GRE, GMAT, LSAT, etc., it is the student's responsibility to contact the outside entity to obtain information about their accommodation procedures. There is typically a paper request form that is required by these entities. In order for the Disability Resource Center to release information regarding services and the student's documentation on file with the DRC office, the student must submit the request in a timely manner and sign a Release of Information Form. Please allow sufficient time for us to complete and return this form so that you can return it to the outside entity with sufficient time to make the necessary accommodation arrangements.

Faculty Notification

The Disability Resource Center work with designated College representatives to notify instructors of specific accommodations via e-mail to their OU e-mail accounts, but will only do

so at the student's request. In order to submit a request for instructor notification, students should contact the Disability Resource Center, email drc@ou.edu. This process must be completed each semester in order to receive accommodations. Students are, of course, encouraged to be self-advocates and are expected to identify themselves to the instructor and discuss the specific accommodations authorized by Disability Resource Center.

Email Usage

The staff of the Disability Resource Center has found that the use of e-mail has increased the speed and effectiveness of the way in which we communicate information of interest and address the concerns of students. Students are encouraged to routinely check their e-mail to obtain information on scholarship opportunities, activities, workforce recruitment, priority enrollment dates and other items of interest to the disability community. Student e-mail accounts on the OU system are automatically set up; however, new users must activate the account by going to <http://account.ou.edu>. Students who do not own a personal computer, may go to one of the computer labs on campus to activate his or her account. The student's username and password are essential to utilize e-mail, access a personal Web page, use a computer lab, enroll for courses, check grades online, etc. Students may check e-mail accounts at the DRC office or at any of the OU computer labs on campus. E-mail accounts can be checked from home by going to <http://oumail.ou.edu>

University of Tennessee

V. Administration

- a. Does your school have a faculty practice? **Yes** Offer practice time? **Yes**, Provide details about the options available for the faculty at your school.
- b. How does your school allow for mandated accommodations for students with a learning disability?
 - i For examinations **Yes** and/or practical? **No**
 - ii How often have you had to deal with this issue? **Sometimes for exams**
 - iii What were the learning disabilities? **Student Assisted Services are available to help students with learning disabilities, by providing tutors and additional time on examinations.**

Please provide your University/School's policy statement?

- iv ***"Students with disabilities in the College of Dentistry at UTHSC who intend to request accommodations must register and officially request accommodations through the Disability Coordinator in Student Academic Support Services (SASS). Regardless of a student's geographic location for experiential education, all requests for accommodations must be submitted with supporting documentation and reviewed for reasonableness by the Disability Consultant. At the beginning of each academic year, students who are approved for accommodations are required to meet with the Disability Coordinator in the SASS. The Disability Coordinator is Laurie Brooks, 448-1452 or confidential***

UTHSC at Houston, School of Dentistry

V. Administration

- a. Does your school have a faculty practice? **Yes.**
Offer practice time? **Yes. But not mandatory.**
Provide details about the options available for the faculty at your school.
Usually ½ day per week to start, after building practice, may be expanded to 1 full day at digression of the Chair. Faculty retain 30% of earnings.
- b. How does your school allow for mandated accommodations for students with a learning disability?

- i For examinations and/or practical?
Yes for exams, no for practicals
- ii How often have you had to deal with this issue?
Every year since 2012, in most didactic courses.
- iii What were the learning disabilities?
Not disclosed to faculty.
- iv Please provide your University/School's policy statement?

Disability Accommodation

If you believe you have a disability requiring an accommodation, please contact:

Dr. Robert Spears
504 Disability Coordinator for UTSD
713-486-4166

UTHSC at San Antonio, School of Dentistry

V. Administration

- a. Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school. **Participation in the Faculty Practice at the school has decreased due to financial and administrative details that do not serve the interests of participants. The Faculty Practice is now combined with the AEGD.**
- b. How does your school allow for mandated accommodations for students with a learning disability? **Yes**
- i For examinations and/or practical? **Didactic examinations and quizzes.**
- ii How often have you had to deal with this issue? **Every year the number seems to grow**
- iii What were the learning disabilities? **We are not advised but students have requested more time for exams, quiet rooms, paper examinations, no windows, and others.**
- iv Please provide your University/School's policy statement?

It is the policy of UT Health San Antonio to comply with the provisions of the Americans with Disabilities Act (ADA) and the ADA Amendments Act of 2008 (ADAAA). The ADA prohibits discrimination against people with disabilities in employment, transportation, public accommodation, communications, educational environments, and governmental activities. Title I of the ADA requires an employer to provide reasonable accommodations to qualified individuals with disabilities who are employees or applicants for employment or applicants for admissions as students, residents to one of the UT Health San Antonio schools.

Texas A&M University, College of Dentistry

V. Administration

a. Does your school have a faculty practice? **No**. Offer practice time? **Yes**. Provide details about the options available for the faculty at your school.

Faculty is allowed a half day to participate in private practice. They may buy an additional half day with 5% of their salary. There is no faculty practice on campus.

b. How does your school allow for mandated accommodations for students with a learning disability? **Yes**.

i For examinations and/or practical?

Written examinations only.

ii How often have you had to deal with this issue?

There are approximately 8-10 students in each class of 106 students that are afforded this accommodation.

iii What were the learning disabilities?

Faculty is not privileged to know.

iv Please provide your University/School's policy statement?

Special Accommodations Guidelines

Accommodations requested should align with the identified functional limitation so that the adjustment to the testing procedure is applicable to the identified impairment. A functional limitation is defined as the behavior manifestation of the disability that impeded the individual's ability to function.

Current evaluation report (within the past five years) must be from an appropriate licensed professional. The document (must be on official letterhead/stationary) should include the professional's credentials, signature, address and telephone number. The report must indicate the candidate's name, date of birth and date of evaluation. The report should include:

- The specific **diagnostic procedures or tests** administered *. Diagnostic methods used should be appropriate to the disability and in alignment with current professional protocol.
- The **results** of the diagnostic procedures and/or tests and a comprehensive interpretation of the results.

- The specific **diagnosis of the disability**, with an accompanying description of the candidate's limitations due to the disability.
- A summary of the complete evaluation with **recommendations for the specific accommodations** and how they will reduce the impact of identified functional limitation.

* **The tests recommended for interpretation:**

1. Wechsler Adult Intelligence Scale – III (with verbal and performance tests divided in 11 subsets)
2. Woodcock-Johnson Psychoeducational Battery – III (with 22 sub tests)
3. Test of Written Language
4. Nelson-Denny Reading Tests
5. Learning and Study Strategies inventory
6. Tests for adult dyslexia, if needed

The evaluator must interpret the test results on reading skills, math skills, written language ability and make a summary and recommendations statement with a definitive DSM-IV diagnosis.

From the Division of Testing Services of the American Dental Association:

“The JCNDE provides reasonable and appropriate accommodations in accordance with the Americans with Disabilities Act for individuals with documented disabilities or a medical condition who demonstrate a need for accommodation and request an accommodation prior to testing.

An individual is considered to have a disability under the Americans with Disabilities Act if he or she has a physical or mental impairment that substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment. Major life activities include seeing, hearing, speaking, walking, breathing, performing manual tasks, learning, caring for oneself, and working.

English as a second language, test anxiety, slow reading without an identified underlying physical or mental deficit, or failure to achieve a desired outcome are not generally covered by the Americans with Disabilities Act.

Testing accommodations are offered to those with a qualified disability or a medical condition in order to offer equal access to testing. Candidates must request testing accommodations with each application, but will not be required to submit additional documentation for the same disability or condition with subsequent reexaminations.

Testing accommodations will not be shared outside of the JCNDE and Test Center, and will not be indicated on examination results reported to state boards or additional recipients.”

Psychological/Learning Disability – 2019 list

Physician Offices:

Dr. Tia Crossley
Synergy Center for Wellness
12800 Hillcrest Road, Ste. A-216
(635 & Hillcrest)
Dallas, TX 75230-1524
972-850-0715

Richland Oaks Counseling Center
1221 Abrams
Richardson, TX
(469) 619-7622

Linda Salinas, Ed.D
5101 Runnin' River Drive
Plano, TX 75093
[(214) 534-0835 – cell (not for students)]
(972) 608-0740 – home – leave message

Cost:

ADD & ADHD testing, Learning Difference testing
Sliding scale based on income

ADD & ADHD testing – 2 – 3 hours @ \$500
Learning Difference testing – 2 appts.
3-5 hrs each \$500 - \$800 – may have grad. student testers who don't charge as much
Most of Richland College & UTD referrals
Sliding scale available

Psycho-educational Testing
Saturday appointments, \$1400
payment plans available (no interest charged)

2018 National Agenda

I. Curriculum

a. Operative Course(s):

- i. How many semesters and in what year(s) is your operative dentistry course taught?
- ii. How many hours per week are devoted to the operative dentistry course?

Summary:

The majority of schools reported an average of 4 semesters/terms which operative dentistry is taught within the curriculum. The average amount of time per week varies for each school.

UDM: 5 terms; varies by course (4 hours per week for operative course)

OSU: 5 semesters, 4-5 hours per week

MW: 7 quarters, 13 hours (combined with Prosth)

UIC: 4 semesters (teaching the same course multiple times to accommodate all students)

WVU: 4 semesters (4 major courses), (4 hours per week)

Mich: 4 semesters (D1 and D2 year), 4 to 8 hours dependent on semester

Pitt: 3 semesters

West: 5 semesters; 8 hours a week

IU: 2 semesters in D1 year, caries management; 10 lab hours per week; D2 year, D3 year

iii. What is/are the course title(s)?

1. How many credit hours are given for each course?
2. Please list the course description(s) as seen in your Bulletin.

Summary:

See individual school responses

- iv. What didactic resources does your Operative course(s) utilize?
 1. Required textbook(s)?
 - a. If Yes, which one(s)?
 2. Lab manuals
 3. Course packets
 4. Handouts
 5. Live hands-on demonstrations
 6. Self-made videos (private domain)
 - a. If Yes, would you be willing to share?
 7. You Tube videos (public domain)
 8. Professionally-made videos (purchased for private use)
 - a. If Yes, how do you like them? Who made the video(s)?
 - b. If No, would your school consider purchasing high quality videos?
 - c.

Summary:

The most common required textbook reported was Sturdevant. Some schools reported the use of a laboratory manual, while other do not have a manual. Many schools reported the use of self-made videos, but no professional videos were made at any of the schools and most schools reported not using You Tube videos.

UDM: Required text (Sturdevant, No lab manual at this time, Live Demos, and self-made videos, No you-tube videos, AxiUm is utilized for clinical grading; formative assessment, Criteria is the same for preclinical and clinical application

OSU: Sturdevant; videos, no lab manual

MW: Sturdevant; changing the manual from Arizona

UIC: Sturdevant; no lab manual, post material online, live demos, self-made videos, no you-tube

WVU: Sturdevant, lab manual is available (electronic format/online),

MICH: suggested text Sturdevant, printed lab binder,

PITT: Sturdevant, lab manual,

West: Schwartz/Summits, course manuals (online),

IU: Sturdevant/Summit, videos, lab manual, live demos,

- v. What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.).

Summary:

Most schools reported that course resource materials are located online. Some schools have resources such as journal articles available.

OSU: Online

MW: Online, egrading-no paper forms (website based), hands on demos, videos, you-tube-no,

WVU: journal articles, product inserts, live demos, no self-videos, no you tube videos, Sturdevant videos

Pitt: no self-made videos,

West: class demos, short videos, no you tube,

IU: see above

UDM: see above

UIC: see above

Mich: see above

- vi. Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth?

1. If Yes, please describe.

Summary:

Majority of the schools reported using extracted teeth to teach concepts and psychomotor skills. A few schools reported using Learn-a-preps.

OSU: Learn-a-prep, extracted teeth

MW: extracted teeth, microscopes

UIC: extracted teeth, DIAGNOdent Learn-a-prep,

WVU: learn-a-prep,

Mich: extracted teeth

Pitt: extracted teeth, learn-a-prep,

West: extracted teeth,

IU: extracted teeth

UDM: Learn-a-prep, extracted teeth

- vii. Is there any OSCE exam in the operative course in your school?
1. If Yes, please describe.

Summary:

Most schools stated that there are no OSCE examinations in the operative courses.

UDM: Mini OSCE for first year operative hand skills, endo access, ergonomics

MW: integrated OSCEs

UIC: no OSCE,

WVU: no operative OSCE, station exam for instruments

Mich: no OSCE for operative

Pitt: no OSCE

West: no

IU: no, station exam for instruments

OSU: Yes, students evaluate preps

b. Operative Faculty:

- i. How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?

Summary:

The amount of F/T and P/T faculty members varies for each school. Please see reported totals below.

UDM: 4 F/T, 16 PT in sim clinic, 2PT in preclinical course

OSU: 10 F/T preclinical, 4 PT faculty in preclinical, Prosth residents,

MW: 13 F/T, 31 PT for preclinic

UIC: 3 F/T, 2 PT, Student instructors,

WVU: 5 faculty (combo FT and PT), student instructors,

Mich: 12 FT (combined with endo), grad students, D4 students,

Pitt: 2 FT, 7 PT (1-10 ratio), D4 students,

West: 1FT, 8 session instructors (PT faculty)

IU: 3 FT, 4 PT, residents, D4 students

- ii. How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.)

Summary:

Majority of schools reported calibrating faculty who teach within the preclinical simulation lab utilizing huddles, attending lectures, and reviewing course rubrics.

UDM: morning huddles in sim lab with faculty, calibration session sign in sheet, ideal photographs during calibration sessions,

OSU: no formal for preclinical courses, calibration session for clinical (1 week a month during lunch session on specific topics), review grading rubrics

MW: huddles, PPTs, review session prior to class

UIC: CE for faculty, have same faculty

WVU: Up to director, review the rubrics, monthly departmental meetings,

Mich: Canvas modules, CE courses, precise photographs

Pitt: Lecture with TAs attending for calibration, huddle, models,

West: Attend lecture, access to online material, huddle, some formal sessions, grading criteria review

IU: Attend lecture, huddle, review criteria

- c. How are patient treatment plans developed?
 - i. Who is involved in the process?
 - ii. How are these patients then assigned to students?
 - iii. How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school?

Summary:

The patient treatment planning process varies greatly from each school. Some schools report a student-ran screening process, while others report a faculty-ran clinic. Most schools assign patients based on student needs. Most schools report the average time frame for patients to begin actual treatment following their initial appointment is about 2-4 weeks.

IU: Screening clinic: each clinic is assigned a half day, the clinic director assign to the student, D3 operative clinic or D4 clinic. Within a few weeks, patient can be treated.

West: Oral diagnosis faculty and speciality faculty, screening clinic/ Treatment-45 days

Pitt: Sequence: Screening, COE, Perio, Treatment plan; students receive patient based on needs; Within 1 to 2 months a patient can begin actual treatment.

Mich: Faculty-ran screening clinic, COE with treatment plan Within a few weeks, patient can be treated.

WVU: screening clinic (student led), radiographs, "problem list" is created; admin assistant (patient care coordinator) assigns patients to students based on student requirement needs. Students have one month to see patient.

UIC: screening student-led, the student who does the screening usually will have patient assigned. Typically, 1-6 weeks for a patient to begin treatment.

MW: D3/D4 pairs, screening is student-led; patients are assigned based on students needs, screening from first appt is 2-3 weeks

OSU: screening student-led, identify basic needs, then goes to CCC and then assign to the students based on student needs. Patients are typically assigned within a week up to 6 weeks (depends on students rotation).

UDM: Clinic Lead's and the faculty on the floor who work as Perio, Endo, Prosth, Comp Care are responsible for helping students developing treatment plan.

II. **Cariology**

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?
 - i. If No, why not?
 - ii. If Yes, is it mandatory or optional?
 - iii. If Yes, do students use them during licensing examinations?
 - iv. If Yes, please list the specific product(s), color(s), and manufacturer(s).

Summary:

Majority of schools report no use of caries detecting dyes due to staining and over-treatment of teeth.

IU: No

UDM: No. But it is available for boards

OSU: No

MW: No (staining)

UIC: No...but have exercises to use them in the pre-clinic to compare

WVU: Snoop and can be used for boards; not mandatory

Mich: No

Pitt: No

West: No

- b. Does your school use any caries detection devices as part of the clinical protocol?
 - i. If Yes, please list the specific product(s) and manufacturer(s).
 - ii. If Yes, please provide the clinical protocol.

Summary:

Most schools lecture on caries detection devices, but do not use them clinically.

IU: No, do discuss diagnodent (and others)

UDM: trans illumination

OSU: diagnodent in lectures

MW: No

UIC: discuss and use in preclinic

WVU: lectures,

Mich: lectures, exercises

Pitt: No,

West: No

III. Materials and Techniques

a. Isolation:

- i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?
 1. If Yes, please describe.

Summary:

When rubber dam isolation is not feasible, most schools reported the use of Isolites or cotton rolls/dry angles.

IU: RDI is required (in discipline clinics) and hope it continues in D4 year. Isolite in grad clinic

UDM: RDI mandatory for all restorative

OSU: RDI mandatory for all restorative; but not allows followed

MW: RDI or isolite

WVU: RDI mandatory; no resin without RDI; Isolite in innovation

Mich: RDI encouraged

Pitt: RDI or Isolite

West: preclinical and clinical RDI mandatory (unless cannot be done)

UIC: cotton rolls, Isolite

b. Adhesives:

- i. How many composite bonding systems do you have in your pre-doctoral clinic?

1. List each system by classification, product name, and manufacturer:
 - a. 4th generation – Three-step Etch-Rinse
 - i. Etch. Rinse. Prime. Bond.
 1. e.g. – Optibond (Kerr)
 - b. 5th generation – Two-step Etch-Rinse
 - i. Etch. Rinse. (Prime+Bond).
 1. e.g. – Prime & Bond (Dentsply)
 - c. 6th generation – Two-step Self-etch
 - i. (Etch+Prime). Bond.
 1. e.g. – Clearfil SE (Kuraray)
 - d. 7th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 1. e.g. – Prompt L Pop (3M ESPE)
 - e. 8th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 1. e.g. – Futura bond DC (VOCO America)

Summary:

Please see brief summary for each school below:

UDC: 2 systems: 2-step and self-etch one step; other systems are introduced later Mich: D1 year, 2 layers of bonding, Optibond 2 step

WVU: Optibond, and go through the generations

UIC: total etch

MW: Excite F- Ivoclar and 8th generation – One-step Self-etch. Adhese SE Universal

OSU: optibond solo

IU: optibond solo plus

West: peak, scotchbond universal

Pitt: prime and bond NT

2. Are your students and faculty provided with specific indications and guidelines for their use?
 - a. If Yes, please provide the indications and guidelines.

Summary:

See individual school responses

c. Light Curing

- i. When is light curing taught in the curriculum and how much time is devoted to the topic?

Summary:

Majority of schools teach light curing during lectures. Some schools have exercises to demonstrate depth of cure and angle.

- ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit?
- iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own?
- iv. What specific curing light(s) do you have available?
 1. Please list name(s) and manufacturer(s)

Summary:

Some schools provide lights while other require students to purchase their light. Many schools have the Valo lights.

UDM: Valo lights

WVU: Valo lights

Mich: yes

UIC: preclinical lights (Super dental wireless) for students but different light (Ivoclar) used in clinic

MW: lights are provided to students (Valo)

OSU: not sure

IU: Valo lights (preclinical and clinical) and ivoclar lights

West: Ivoclar blue face (student purchases)

UIC: preclinical lights for students but different light (demi light) used in clinic

- v. What protocols are in place to ensure the proper use of your light curing system(s)?
- vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)?

Summary:

Most schools report that the lights are maintained by the dispensary or by a clinic staff member.

IV. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission?
 - i. If Yes, describe what is required of the applicant.

Summary:

Most schools reported not having bench testing prior to admissions for the DDS program.

West: NO

Pitt: NO

Mich: Yes

WVU: NO

UIC: NO

MW: NO

OSU: NO

UDM: NO

IU: NO

- b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)
 - i. Are all students who fail eligible for remediation?
 1. If No, what circumstances would not allow remediation?

Summary:

Majority of schools reported that they do offer remediation for didactic and laboratory courses. Most schools have a specific protocol in place for remediation eligibility. Please see brief summaries for each school below.

West: Need to pass both didactic and lab portion. Written examination-1 remediation. Practical-2 attempts

Pitt: Yes, didactic courses receive 1 remediation exam-which the students must pass; dismiss from dental school

Mich: dependent on course director; most courses need to pass both lecture/lab. 70% to pass

WVU: ABCF grading scale, 75% is passing grade / Remediation occurs during a course; final grade outcome is failure=committee for review. Tutor is given.

UIC: Even opportunity – 1 attempt once they have failed. If student fails 1 attempt= go to committee for review and receive recommendation to continue or not; make final decision. ABCF grading scale with 75% minimum pass rate. If pass remediation, 70% is highest score given. Student contract with guidelines

MW: Didactic exams every other week; therefore, students have more opportunities to achieve higher scores.

OSU: In course remediation, special session called "aim high"=if students do not go and fail.

UDM: ABCF scale, preclinical didactic and lab are combined. No written exam remediation; lab remediation is given = 70% pass; not pass=committee determines if 2nd remediation plan. Recorded score 50%.

IU: 70% passing rate; 65-69% is remediation range, below 65 = Progress committee. Course director determines remediation. Once students receive their 3rd remediation = repeat year.

- ii. Do all students eventually pass remediation?
 1. If No, what happens to them?

Summary:

All schools reported that the students typically pass the remediations. If not, most schools stated that their policy is to repeat the year.

West: Majority pass, but not all. If fail, repeat year. If fail within first year, student is dismissed but students can reapply. There is an appeal process.

Pitt: Majority pass

Mich: Majority pass; highest grade they can earn is C-

WVU: Yes. If students fail remediation, repeat year or withdraw with reapply option

UIC: Majority pass

MW: Majority pass; option to repeat the next time offered.

OSU: Majority pass

UDM: Majority pass

IU: Majority pass

- iii. How do you remediate students who fail the didactic program?

Summary:

Most schools reported in course remediation or a remediation examination.

West: written examination

WVU: no remediation with written examination (in course remediation and tutoring)

UIC: in course remediation

MW: in course remediation, meet with course directors

OSU: review over break, and remediate exam

UDM: no remediation; 4 examinations and quizzes

IU: remediation examination

Pitt: remediation examination

- iv. How do you remediate students who fail the laboratory simulation program?

Summary:

Most schools have in course remediation.

Pitt: For Practical examination, remediation work, highest grade will be a C.

UIC: in course remediation

MW: in course remediation, retake examination

OSU: Aim high program, and in course remediation

IU: in course remediation

West: in course remediation/meet with course director

WVU: retake examination

UDM: remediation exercises

- c. How do clinical procedures get evaluated? (pass/fail, grading scale, etc.)
 - i. Do you use a clinical evaluation (grading) system that is integrated with axiUm?
 - 1. If Yes, please describe.
 - 2. If No, what system do you use to collect the data?

Summary:

Many schools reported using daily grades and using axiUm.

IU: Clinical daily formative (2012) in axiUm

West: 1-4 grading scale, clinical experience course which is P/F,

Pitt: Clinical daily grade 100 point scale; below 70%=no credit for procedure; grades entered on Blackboard

UDM: Pass/Fail and daily formative grading GAS system. Yes and no-getting forms into axiUm.

Mich: No daily evaluation; the clinic directors monitor student progress. Test cases are used to determine grading; grade in Canvas.

WVU: Every procedure and daily grade with 5 categories in axiUm (score 0-4), with comments section

UIC: formative assessment in axiUm, not part of course grade. Summative grading mid semester and final semester is used per student (clinic directors).

MW: axiUm daily grade as formative assessment,

OSU: daily form for each session. Daily form for procedures; axiUm data is collected dependent on course requirements

- d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?
 - i. If Yes, how long is the specified time for the following:

1. Class II amalgam
2. Class II composite
3. Full crown preparation

Summary:

Most schools reported not having a finite length of time for procedures in the preclinical laboratory for completion other than the project due dates.

- ii. If Yes, is there an assessment at the end of the specified time?
 1. If Yes, is this assessment a factor in the project or course grade?
 - iii. If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?
- e. How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure?
- i. How is it assessed (manikin vs. live patient)?
 - ii. When do these assessments occur?

Summary:

Some schools reported have a course or assessment, which assessed the students prior to entering the clinics. Others used an OSCE assessment.

IU: Revisit via gateway lab prior to entering clinic

Western: Treatment sessions

Pitt: Yes

UDM: Mini OSCE, and competency assessment

Mich: No

WVU: No for operative

UIC: No

MW: Yes, several times; and a 4 day long examination (radiology, clinical application questions, perio, endo, 14 preps/restoration (operative/prosth); need to pass to enter into clinic.

OSU: 3 times, typodont and live patient for competency

- f. Does your school provide mock boards for your students?
 - i. If Yes, how are patients obtained?
 - ii. If Yes, provide details on how mock boards are conducted.
 - iii. If Yes, is passing the mock boards a requirement for taking the actual board exam?
 - iv. If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards?
 - v. If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards?

Summary:

Most schools provide Mock Boards for students. Schools reported manikins and/or live patients were utilized. Most schools do not make passing the Mock boards a requirement for taking the actual board exam. Few schools reported studies.

IU: Mock on manikins

West: No

Pitt: Yes, 4 days on live patients, simulate the examination, not a requirement to take Boards but requirement for operative

UDM: Students must challenge 2 Mock exams to sit for actual board; manikin and live patients are used.

Mich: Yes

WVU: Operative on manikin, Run by SRTA, Not a requirement for taking Mock Boards

UIC: manikin and patient Mock Boards, not an requirement but part of the operative course

MW: Yes, live patients, requirement to take Board.

OSU: Yes, simulate Mock examination; if fail Mock=manikin prior to actual board.

Correlation= perhaps.

V. Administration

- a. Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school.

Summary:

The majority of the schools reported having a faculty practice or private practice option.

UDM: Yes, it is offer for faculty. PP or FP option.

OSU: Yes. Only option is FP or you don't practice.

MW: No.

UIC: PP or FP

WVU: FP or PP

Mich: FP or PP

Pitt: FP, no PP

West: FP, PP

IU: FP or PP

- b. How does your school allow for mandated accommodations for students with a learning disability?
- i. For examinations and/or practical?
 - ii. How often have you had to deal with this issue?
 - iii. What were the learning disabilities?
 - iv. Please provide your University/School's policy statement?

Summary:

For most schools, accommodations are offered for didactic examinations but not for practical or performance examinations.

UDM: only examination, usually every year, learning disabilities listed, university services which determines the accommodation.

OSU: disability services which determines the accommodations,

MW: quiet room, not for practicals

UIC: 1.5 or double the time, typically 14 students per year on accommodations

WVU: university provides the service

Mich: for written examinations

Pitt: for written examinations

West: written examination, some for practicals, accommodations are determined off-site, 0-3 students

IU: written examinations, university level, medical documentation required

Individual school responses to the National Agenda

2018 National Agenda

VI. Curriculum

- a. Operative Course(s):
 - i. How many semesters and in what year(s) is your operative dentistry course taught?
 - ii. How many hours per week are devoted to the operative dentistry course?
 - iii. What is/are the course title(s)?
 - 1. How many credit hours are given for each course?
 - 2. Please list the course description(s) as seen in your Bulletin.
 - iv. What didactic resources does your Operative course(s) utilize?
 - 1. Required textbook(s)?
 - a. If Yes, which one(s)?
 - 2. Lab manuals
 - 3. Course packets
 - 4. Handouts
 - 5. Live hands-on demonstrations
 - 6. Self-made videos (private domain)
 - a. If Yes, would you be willing to share?
 - 7. You Tube videos (public domain)
 - 8. Professionally-made videos (purchased for private use)
 - a. If Yes, how do you like them? Who made the video(s)?
 - b. If No, would your school consider purchasing high quality videos?
 - v. What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.).
 - vi. Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth?
 - 1. If Yes, please describe.
 - vii. Is there any OSCE exam in the operative course in your school?
 - 1. If Yes, please describe.

Buffalo	No response
Case Western	No response
Detroit Mercy	Operative Course(s): How many semesters and in what year(s) is your operative dentistry course taught? Spread into 5 terms due to recent Integration

	<p>How many hours per week are devoted to the operative dentistry course? Varies, with integrated course (4 hours) Maybe more didactical/practical</p> <p>What is/are the course title(s)? DRD 8001,8002 8003, 8004 and 8005 Integrated Clinical Essentials and Simulation cores/etc</p> <p>How many credit hours are given for each course? Eight Please list the course description(s) as seen in your Bulletin. DRD 8001,8002 8003 8004 and 8005 integrated Clinical Essentials and Simulation</p> <p>What didactic resources does your Operative course(s) utilize?</p> <p>Required textbook(s)? Yes If Yes, which one(s)? Sturvedant's Art and Science of Operative Dentistry 7th edition</p> <p>Lab manuals – No, not with the new integrated pattern, we had one with the old format</p> <p>Course packets -No</p> <p>Handouts- Yes</p> <p>Live hands-on demonstrations -Yes</p> <p>Self-made videos (private domain) Self made If Yes, would you be willing to share don't know.</p> <p>You Tube videos (public domain) No</p> <p>Professionally-made videos (purchased for private use) No If Yes, how do you like them? Who made the video(s)? If No, would your school consider purchasing high quality videos? (Possibly)</p> <p>What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.). We had lab manual to refer by old curriculum but with the change in the structure we are in the process of developing a lab manual by new curriculum. For now we have criteria/rubric sheets to follow</p> <p>Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? Learn-A-Prep, Extracted teeth If Yes, please describe.</p> <p>Is there any OSCE exam in the operative course in your school? If Yes, please describe. Yes, Mini OCSE (Comprehensive skills</p>
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	<p>on Ergonomics, Infection control, AxiUm waxing, operative and single canal endo access opening) in DRD 8001,8002 and clinic readiness assessment in 8005</p>
<p>Indiana</p>	<p>Operative Course(s):</p> <p>How many semesters and in what year(s) is your operative dentistry course taught? See attached</p> <p>How many hours per week are devoted to the operative dentistry course? See attached</p> <p>What is/are the course title(s)? See attached.</p> <p>How many credit hours are given for each course? See attached</p> <p>Please list the course description(s) as seen in your Bulletin. See attached</p> <p>What didactic resources does your Operative course(s) utilize? See attached</p> <p>Required textbook(s)?</p> <p>If Yes, which one(s)?</p> <p>Lab manuals</p> <p>Course packets</p> <p>Handouts</p> <p>Live hands-on demonstrations</p> <p>Self-made videos (private domain) Yes</p> <p>If Yes, would you be willing to share? Maybe</p> <p>You Tube videos (public domain) No</p> <p>Professionally-made videos (purchased for private use) No</p> <p>If Yes, how do you like them? Who made the video(s)?</p> <p>If No, would your school consider purchasing high quality videos? Maybe</p> <p>What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.). See attached</p> <p>Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? No</p> <p>If Yes, please describe.</p>

	<p style="text-align: center;">Is there any OSCE exam in the operative course in your school? If Yes, please describe. Not at present but it has been discussed.</p>
<p>Michigan</p>	<p>Operative Course(s):</p> <p>How many semesters and in what year(s) is your operative dentistry course taught? D1 and D2 years 4 semesters</p> <p>How many hours per week are devoted to the operative dentistry course? 8 hours</p> <p>What is/are the course title(s)? Clinical Foundations I and II</p> <p>How many credit hours are given for each course?</p> <p>Please list the course description(s) as seen in your Bulletin.</p> <p>What didactic resources does your Operative course(s) utilize?</p> <p>Required textbook(s)? No Studervant's Art and Science of Operative Dentistry</p> <p>If Yes, which one(s)?</p> <p>Lab manuals No</p> <p>Course packets Yes</p> <p>Handouts Yes</p> <p>Live hands-on demonstrations No in general, but I like to give short demos for specific topics (ex. Sealants, caries removal, rubber dam placement)</p> <p>Self-made videos (private domain) yes</p> <p>If Yes, would you be willing to share? Yes</p> <p>You Tube videos (public domain) No</p> <p>Professionally-made videos (purchased for private use)</p> <p>If Yes, how do you like them? Who made the video(s)? no</p> <p>If No, would your school consider purchasing high quality videos? yes</p> <p>What other resources do you provide? (lab manuals, course</p>

	<p>packets, supplementary reading, etc.). Supplementary reading</p> <p>Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth?</p> <p>If Yes, please describe. Yes Natural teeth practice</p> <p>Is there any OSCE exam in the operative course in your school?</p> <p>If Yes, please describe. No</p>
<p>Midwestern</p>	<p>Operative Course(s):</p> <p>How many semesters and in what year(s) is your operative dentistry course taught? 7 quarters. Both first and second years</p> <p>How many hours per week are devoted to the operative dentistry course? 13 hours</p> <p>What is/are the course title(s)? They are titled as sequential numbers.</p> <p>How many credit hours are given for each course? Simulation clinic is 4 going to 9.5 credit hours/quarter. Didactic is similar but includes all disciplines in each course.</p> <p>Please list the course description(s) as seen in your Bulletin.</p> <p>What didactic resources does your Operative course(s) utilize?</p> <p>Required textbook(s)? Yes If Yes, which one(s)? Sturdevant's Art and Science of Operative Dentistry</p> <p>Lab manuals- Yes</p> <p>Course packets- No</p> <p>Handouts- Online</p> <p>Live hands-on demonstrations- Yes, many.</p> <p>Self-made videos (private domain)- Yes If Yes, would you be willing to share? - Yes</p> <p>You Tube videos (public domain)- No</p> <p>Professionally-made videos (purchased for private use)- No</p> <p>If Yes, how do you like them? Who made</p>

	<p>the video(s)?</p> <p>If No, would your school consider purchasing high quality videos? - Possibly</p> <p>What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.). Online materials-pictures, drawings, videos, PPT's, manual, digital designs and curriculum.</p> <p>Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? Yes</p> <p>If Yes, please describe. Extracted teeth. Scanning of preparations/restorations at magnification.</p> <p>Is there any OSCE exam in the operative course in your school?</p> <p>If Yes, please describe. Yes. 50 Question in first year, instruments, burs, preparations. 50 station at end of second year, cumulative for first two years.</p>
Ohio State	<p>Dent 6540.01 and .02 Operative 1</p> <p>Section 1 -7:30-8:30 AM –Room 1160 Thursday morning class sessionswill cover: a. Dental instruments usage and namingb. Electric Handpieceusagec. Hand positionsand seating positions d. Indications/contraindications for amalgam and composites as a restorative material e. Conventional tooth preparations for amalgam restorations f. Rubber dam placement</p> <p>Section 2 -12:30-1:30 Room 1160Thursday afternoon lectureswill cover: a. Background information about tooth microstructure b. Dental caries c. Dental materials (i.e. gypsum, bases, liners, waxes, sealants, etc.) d. Material properties The laboratory course will immediately follow the Thursday morning lecture 8:30-11:30 in the Pre-Clinical Lab and will focus on preparation.</p> <p>6541.02 is a combined lecture/laboratory 2 credit hour course, 1 credit hour for 6541.01didactic and 1credit hour for 6541.02 laboratory. It is the second course in the operative dentistry series, Operative Dentistry II. Dentistry 6541.02 will introduce</p>

the Dent I student to Class I, II, V amalgam and composite restorations. Students will also review principals of amalgam preparations and be introduced to complex amalgam preparations and restorations. Dentistry 6541 will also cover indications for bases and liners in preparations. Dentistry 6541.02 will administer 2 laboratory practicals, February 27 and April 10. There is NO retake practical. Dent 6541.01 will also administer 2 written quizzes March 6 and April 17. There are no make ups for missed practicals or quizzes. Students are required to attend all lecture and laboratory sessions. Dent 6542.01 and .02 Operative 3 Dentistry 6542.01 and 6542.02 is a combined lecture/ laboratory 2 credit hour course. 1 credit hour for 6542.01 didactic and 1 credit hour for 6542.02 laboratory part. It is the third course in the operative dentistry series, Operative Dentistry III. Dentistry 6542.02 will introduce students to Class III & IV cavity preparations and restorations. Students will also review and restore Class II composite restorations. D 6542.02 will administer 2 laboratory practical tests, May 31st and July 19th . There is NO retake practical. D 6542.01 will also administer 2 written quizzes May 31st and July 19th. There are no make ups for missed practicals or quizzes. All students are required to attend all lecture and laboratory sessions.

Dent 6534.01 and .02 Operative 4

Dent 6534 is the fourth course in Operative Dentistry. Dentistry 6534.01 is a 1 credit hour course and Dentistry 6534.02 is a 1 credit hour course. The course will provide the students an opportunity to practice Class IV preparations and restorations. A competency will be given for Class IV restorations. The students will be introduced to the art and science of color and shade matching in dentistry, principles of metal/ceramic inlay and onlay preparations and restorations, principles of direct and indirect veneer preparations and restorations, principles and practice of diastema closure didactically, introduced to digital restorative dentistry, digital impressions, and CAD/CAM dentistry. Students will perform all the taught procedures in pre-clinic, fabricate an indirect restoration using a chairside CAD/CAM system, finish/polish and cement an indirect CAD/CAM restoration. Students will be required to evaluate and critique restorations through an evaluation/critique lab exercise (OSCE). A competency will be administered for ceramic inlay

	<p>and onlay preparations.</p> <p>Dent 6546.01 and .02 Operative 5</p> <p>Dent 6546 is the fifth course in Operative Dentistry in the DDS curriculum. Dentistry 6546.01 is a 1 credit hour course. Students will review principals of composite preparation and restoration, principals of amalgam preparation and restoration, bases and liners, and complex amalgam preparations and restorations. Dentistry 6546 will include foundation restorations. Very often teeth with large carious lesions fracture or other loss of substantial tooth structure require a foundation restoration prior to the fabrication of a full coverage restoration. These amalgam restorations form the foundation that provides retention and resistance form for the crown. It is important that the foundation have sufficient retention, resistance and strength to provide a suitable foundation, even after the tooth is prepared for a crown. Dentistry 6546.01 will include introductory lectures to dental technology not in general use in the College of Dentistry but commonly available and currently used in many private general dental practices. Dentistry 6546.01 & .02 will have 6 lectures and/or laboratory sessions prior to the operative pre-clinical competency exam. After the initial competency examination is given, there will be a grading day with no lecture or laboratory session. There will be 4 lectures on lasers and 3 opportunities to be remediated and tested on failed procedures in the competency after the initial competency test. Successful completion of Dentistry 6546.01</p> <p>What didactic resources does your Operative course(s) utilize?</p> <p>Required textbook(s)?</p> <p>If Yes, which one(s)? Sturdevant's The Art and Science of Operative Dentistry, 6th edition by Heymann, HO et al, Elsevier Publishing Co., Inc., 2013.</p> <p>Lab manuals None Course packets Digital On line Handouts Digital On line Live hands-on demonstrations Yes Self-made videos (private domain) Yes If Yes, would you be willing to share? Not sure. Would need the permission</p>
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	<p>for each producer. You Tube videos (public domain) Some. Professionally-made videos (purchased for private use) None If Yes, how do you like them? Who made the video(s)? If No, would your school consider purchasing high quality videos? If they would support our curriculum. What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.). Equipment and teeth. Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? If Yes, please describe. Learn-a-Prep; Extracted teeth. Is there any OSCE exam in the operative course in your school? If Yes, please describe. An OSCE using examples of preps and restorations where the students will critique and evaluate each example.</p>
Pittsburg	<p>How many semesters and in what year(s) is your operative dentistry course taught? First year for two semesters. Second year one semester. The first semester is the amalgam course followed by a semester of composite preparations and restorations. We are changing this into one course which will be a combination of the two courses listed above course. At the end of the second year, just before they enter the clinic, there is a short course where they prepare and restore typodont teeth with both amalgam and composite restorations.</p> <p>How many hours per week are devoted to the operative dentistry course? Presently, two hours of lecture and three hours in the simulation clinic.</p> <p>What is/are the course title(s)? Operative Dentistry 1 and 2.</p> <p>How many credit hours are given for each</p>

	<p>course? Both lab courses listed below are for 1.5 credits. The first Operative Dentistry course is for 2 credits and the second Operative Dentistry course is for 1 credit since it is less weeks. Therefore, this totals 6 credits.</p> <p>Please list the course description(s) as seen in your Bulletin.</p> <p>Principles of Operative Dentistry 1: In this course, students will gain a general understanding of the fundamentals of operative dentistry, specifically the principles of intra-coronal cavity preparation and restoration of teeth with amalgam. This course includes lectures and class discussions. The accompanying laboratory course provides an opportunity for hands-on experiences in a preclinical setting.</p> <p>Principles of Operative Dentistry 1 Lab: In this course, students will develop the psychomotor skills to prepare and restore cavities using amalgam on a mannequin. This course includes small group laboratory sessions.</p> <p>Principles of Operative Dentistry 2: In this course, students will be prepared with the operative dentistry knowledge and techniques to successfully restore the dentition utilizing composite resin materials. Additionally, the student will learn adjunctive esthetic information and alternative treatment modalities. This course will provide the foundational knowledge to allow the student to understand and apply the basic principles of preparation design, adhesion, and finishing of composite restorations in the pre-clinic environment. This course includes lectures and class discussions.</p> <p>Principles of Operative Dentistry 2 Lab: This pre-clinical lab course is given in conjunction</p>
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	<p>with the lecture course for composite resin restorations. In this course, students will acquire the psychomotor and instructional skills in treating Class I, II, III, IV, V lesions using bonded composite restorative materials. Students will also learn to restore cuspal fractures and place sealants using bonded resin materials. The student will learn how to properly evaluate their finished restorations for form, function and esthetics.</p> <p>What didactic resources does your Operative course(s) utilize?</p> <p>Required textbook(s)? Yes, but students do not buy them so I guess they are not really required.</p> <p>If Yes, which one(s)? Fundamentals of Operative Dentistry by Summit</p> <p>Lab manuals: We have lab manuals created by the course director.</p> <p>Course packets: No</p> <p>Handouts: Only a few throughout the course if the material is not taught in lecture or if the information needs added to the lab manual.</p> <p>Live hands-on demonstrations: Yes a few procedures, for example using a matrix band, are demonstrated by the bench instructors.</p> <p>Self-made videos (private domain): No</p> <p>a. If Yes, would you be willing to share?</p> <p>You Tube videos (public domain): Last year for the composite pre clinical course videos were posted on Blackboard for the students to observe.</p> <p>Professionally-made videos (purchased for private use): No</p>
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	<p>If Yes, how do you like them? Who made the video(s)?</p> <p>If No, would your school consider purchasing high quality videos? I doubt it.</p> <p>What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.). Lab Manuals and some handouts.</p> <p>Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? No</p> <p>If Yes, please describe.</p> <p>Is there any OSCE exam in the operative course in your school? No</p> <p>If Yes, please describe.</p>
<p>UIC</p>	<p>Operative Course(s):</p> <p>How many semesters and in what year(s) is your operative dentistry course taught? 4 semesters: D1-Fall, Spring D2- Summer, Fall</p> <p>How many hours per week are devoted to the operative dentistry course? Didactic; 1.5 to 3 hours</p> <p>Preclinical activities: 3 to 6 hours.</p> <p>What is/are the course title(s)? At UIC COD, there are no separate operative courses. It is a part of a comprehensive course that includes all clinical sciences.</p> <p>How many credit hours are given for each course? 11 to 13 CH</p> <p>Please list the course description(s) as seen in your Bulletin.</p> <p>From DAOB 311 syllabus (Fall D1):</p> <p>Participation in the General Dentistry component is intended to provide students with the opportunity to progress towards achieving basic competency in recognizing and promoting health of the craniofacial complex. Competency is defined as the level of knowledge, skills and values needed to identify and describe the condition of health and develop plans to maintain health and prevent disease.</p>

	<p>From DAOB 312 (Spring D1): The restorative dentistry component of the course utilizes preparations and restorations for dental amalgam and composite as a focus for introducing restorative dentistry concepts, terminology, and instrumentation. There will be an emphasis on understanding evaluation criteria and on demonstration of accurate self- assessment for restorative clinical procedures. Treatment of carious infections and incipient lesions, risk assessment, research principles, and dental bio-materials topics will be integrated into this component of the course. Assigned reading from contemporary textbooks and the current dental literature will allow students to continue the development of the skills and the application of principles related to evidence based dental practice. Additional restorative dental materials will be introduced as treatment considerations are discussed for the various lesion types in G.V. Black's classification.</p> <p>From DAOB 321 (Summer D2): The objective for the restorative dentistry portion of the course is to continue a discussion of restorative options for simple and more complicated clinical conditions. Preparations and restorative options for Class II, III, IV and V defects will be covered as well as clinical considerations for patients with a variety of restorative needs. All restorative options including direct and indirect, tooth-colored and metallic restorations will be addressed. The indirect restorative options to be considered are metal, porcelain fused to metal and all ceramic full coverage restorations. The course will also introduce fabrication of provisional restorations. Clinical sessions will provide an opportunity to practice the various options in an environment that closely simulates patient care. The intent is to prepare students for a seamless transition to clinical patient care.</p> <p>What didactic resources does your Operative course(s) utilize? Required textbook(s)? -Surdevant Art and Sciences of Operative Dentistry. - Treatment planning in Dentistry. Stefanac -Craig's Restorative Dental Materials. Sakaguchi and Powers If Yes, which one(s)?</p>
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	<p>Lab manuals (None)</p> <p>Course packets. Group of criteria sheets or rubrics.</p> <p>Handout. Variety of handouts posted on the Blackboard site.</p> <p>Live hands-on demonstrations yes</p> <p>Self-made videos (private domain) We have made a series of videos to illustrate preparation and restoration for occlusal amalgam, preparation and restoration of Class III composite, restoration of direct composite veneers, oral cancer screening, occlusal assessment, waxing technique.</p> <p style="padding-left: 40px;">If Yes, would you be willing to share? Yes</p> <p>You Tube videos (public domain) No</p> <p>Professionally-made videos (purchased for private use) NO</p> <p style="padding-left: 40px;">If Yes, how do you like them? Who made the video(s)?</p> <p style="padding-left: 40px;">If No, would your school consider purchasing high quality videos? Yes</p> <p>What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.). Supplementary reading by evidence- based literature from Pub med.</p> <p>Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? We also do a few sessions using extracted teeth to teach the placement of pit and fissure sealants, caries excavation exercise, the use of caries indicators, advanced technology for caries detection. We will incorporate for the D1 year the use of a Learn-A_Prep.</p> <p style="padding-left: 40px;">If Yes, please describe.</p> <p>Is there any OSCE exam in the operative course in your school?</p> <p style="padding-left: 40px;">If Yes, please describe. No</p>
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<p>West Virginia</p>	<p>Operative Course(s):</p> <p>How many semesters and in what year(s) is your operative dentistry course taught? There are actually four different operative courses. The first one introduces principles, classifications etc. Class I, II, II, V and Complex amalgam preparations and restorations, taught Spring (second) semester of first year. Tooth colored restorations are taught in 2 different courses. The first one begins Summer term following first year (right after the first operative course) and continues through the Fall semester of second year. There is an advanced composite course that is now becoming an advanced operative (composite, amalgam, and inlay/onlay) course which is taught for half of the Spring/second semester of third year (after students have been in clinic). The inlay/onlay course is taught in the Fall/first semester of second year.</p> <p>How many hours per week are devoted to the operative dentistry course? Amalgam/first course is 8 hours per week for one semester, Tooth colored restorations is 4 hours per week over 2 semesters- summer and fall, Indirect Restorations (Inlays/Onlays) is 4 hours per week over one semester. The advanced operative course is currently 4 hours for ½ semester but will become an entire semester.</p> <p>What is/are the course title(s)? Operative Dentistry, Tooth Colored Restorations, Indirect Restorations, Advanced Composites (Soon to be Advance Operative Dentistry)</p> <p>How many credit hours are given for each course? Operative- 4, Tooth Colored Restorations-4, Indirect Restorations-4, Advanced-2</p> <p>Please list the course description(s) as seen in your Bulletin.</p> <p><u>Operative Dentistry 704</u> is an introduction into the basic concepts and techniques involved in clinical operative dentistry. It includes historical, background, and current information for non-surgical and surgical management of dental caries with the emphasis given on directly placed amalgam restorations.</p> <p>Methodolog The course meets every Tuesday and Thursday morning from 8:00 am until 1200 noon. There are reading assignments from textbooks, a laboratory manual and</p>
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handouts, plus videos of the technical procedures. The instructional format is an introductory lecture followed by a laboratory session designed to develop technical clinical skills.

Powerpoint

lectures and videos are available on SOLE.

Dentistry 729 Indirect Restorations is a didactic and laboratory course that introduces the fundamental knowledge and psychomotor skills necessary to treat dental patients with indirect restorations involving gold and ceramic materials.

Methodology

Time:

Lecture: Fridays 1:00 PM – 2:00 PM

Lab: Fridays 2:00 PM – 5:00 PM

Required Instructional Materials

Textbook (Required): Heymann, Harold O, *Sturdevant's Art and Science of Operative Dentistry*, 6e, 2013, Mosby.

Additional required course resources will be available on SOLE

Instructional format: Lecture and simulation lab exercises

Dentistry 722 Tooth-Colored restorations Course Overview

This preclinical course consists of lectures in which the first/second year dental students are introduced to the materials and techniques used to prepare and restore teeth with direct tooth colored restorative materials.

Lectures are followed by simulated clinical procedures involving tooth colored preparations and restorations performed on both manikin ivory teeth as well as natural teeth.

Methodology

Time: 8:00am-12:00pm

Lectures: Thursdays at 8:00am in 1106

Lab: Thursday following lecture

	<p style="text-align: center;">Readings (as assigned):</p> <p style="text-align: center;">Required Textbook: Sturdevant’s Art and Science of Operative Dentistry (6th Edition)</p> <p style="text-align: center;">Instructional Format: Lectures and simulated clinical procedures in the laboratory</p> <p>What didactic resources does your Operative course(s) utilize? Text, Powerpoints, Lab manual, Journal articles</p> <p>Required textbook(s)? Yes</p> <p style="text-align: center;">If Yes, which one(s)? Sturdevant’s Art and Science of Operative Dentistry</p> <p>Lab manuals For amalgam/1st Op course—developed at WVU, modified each year for content/schedule etc.</p> <p>Course packets No</p> <p>Handouts Select Journal articles deemed pertinent by course directors. Manufacturer directions/information for various materials.</p> <p>Live hands-on demonstrations Yes, for preparations and restorations.</p> <p>Self-made videos (private domain) Yes- for tooth colored restorations</p> <p>If Yes, would you be willing to share? Made by private party/ WVU alumni for use only for school by specific course director.</p> <p>You Tube videos (public domain) No</p> <p>Professionally-made videos (purchased for private use) No</p> <p>If Yes, how do you like them? Who made the video(s)?</p> <p>If No, would your school consider purchasing high quality videos? This would be at the discretion of the Dean of Academic Affairs and/or the Chair of the Dept. of Restorative Dentistry</p> <p>What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.). Lab manual for 1st Op</p>
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	<p>course/ amalgam</p> <p>Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? None other than videos</p> <p>If Yes, please describe.</p> <p>Is there any OSCE exam in the operative course in your school?</p> <p>If Yes, please describe. Students must successfully complete PA's (Performance Assessments) which are skills tests on preparations and restorations graded via rubrics for each course. An instrument identification test is given (timed stations) in the first operative course.</p>
<p>Western Ontario</p>	<p>Operative Course(s): How many semesters and in what year(s) is your operative dentistry course taught?</p> <p>-Years 1, 2, & 3- 1 term in 1st year, just over 1 term in 2nd year, ~½ a term in 3rd year</p> <p>-2 one-hour operative dentistry related lectures occur within the 3rd year Integrated Restorative course.</p> <p>-10 one-hour operative dentistry related lectures occur within the 4th year Integrated Restorative course</p> <p>-There is a 4th year CAD-CAM elective course (consisting of 4 3-hour sessions) available to a limited number of students.</p> <p>How many hours per week are devoted to the operative dentistry course?</p> <p>Year 1- ~8 hrs per week during the course</p> <p>Year 2- ~8 hrs per week during the course</p> <p>Year 3- ~4 hrs per week during the course</p> <p>What is/are the course title(s)?</p> <p>-D5125 Operative Dentistry I, D5225 Operative Dentistry II, D5325 Operative Dentistry III</p> <p>How many credit hours are given for each course?</p> <p>Year 1- 31 lecture hrs, 85 lab hrs</p> <p>Year 2- 21 lecture hrs, 78 lab hrs</p>

	<p>Year 3- 8 lecture hrs, 24 lab hrs</p> <p>Please list the course description(s) as seen in your Bulletin.</p> <p>Year 1- An Introduction to operative dentistry in which the student will familiarize him/ herself with the basic instrumentation of operative dentistry and the role of the simulation clinic in training. A variety of operative procedures will be taught with reference to the disease processes they are designed to treat. These operative procedures will generally be the simpler operative tasks beginning with preventive and minimally invasive techniques with the aim of developing requisite psychomotor skills in order to prepare the student for both patient treatment and more complex tasks in year 2 simulation exercises.</p> <p>Year 2- The second-year operative course is a continuation of operative first-year in which the student will further develop the operative skills learned in year 1 and advance to more complex procedures. Students will learn principles, materials, instrumentation and techniques to practice direct operative procedures of a more complex nature. This course will include preparation and restoration of tooth surfaces that have poorer access for vision and instrumentation, as well as more extensively damaged teeth involving a greater number of surfaces. The interface between endodontics and operative dentistry (management of deep caries) will be considered simultaneously as the course is synchronized with D5228 (2nd year Endodontics).</p> <p>Year 3- The third year operative course aims to guide students in the diagnosis, treatment planning, preparation, and restoration of teeth extensively damaged by caries or fractures. Polychromatic restorations and indirect restorative procedures will be performed, taking into consideration the clinical and biological aspects involved in the management of hard tissue lesions in the oral environment.</p> <p>What didactic resources does your Operative course(s) utilize?</p> <p>Required textbook(s)?- Yes</p> <p>If Yes, which one(s)?</p> <p>Year 1: 1) Fundamentals of Operative Dentistry – A Contemporary Approach, Third Edition, Summit, Schwartz et. al,</p> <p>2)Essentials of Dental Caries, Kidd</p> <p>3) D5125 Didactic Course Manual</p>
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<p>Year 2: Same as above, except the D5225 Didactic Course Manual is used instead of the D5125 Manual</p> <p>Year 3- Same as above</p> <p>Lab manuals- Yes- the didactic course manuals noted above</p> <p>Course packets- No</p> <p>Handouts- On occasion/Limited</p> <p>Live hands-on demonstrations- Sometimes- typically these will be one on one or small group demos of a particular aspect of a procedure. On occasion, larger whole class demos have been performed.</p> <p>Self-made videos (private domain)- Yes, some short videos/video clips</p> <p>If Yes, would you be willing to share? Possibly, although they are specifically tailored to reinforce the techniques taught in our school & for specific exercises</p> <p>You Tube videos (public domain)-Limited use- a few clips in 2nd and 3rd year</p> <p>Professionally-made videos (purchased for private use)- No</p> <p>If Yes, how do you like them? Who made the video(s)?</p> <p>If No, would your school consider purchasing high quality videos? Possibly, but they would have to fit our curriculum/methodology and really be worth the money/add something to the program</p> <p>What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.).</p> <p>Supplementary readings, lab manuals, evaluation criteria, online lecture notes/photos, availability of sample preps/restorations to view</p> <p>Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth? If Yes, please describe.</p> <p>Professional score & criteria, practical exams, biomaterials labs</p>
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	<p>with a practical component, cariology lab, “cariious” dentoform tooth lab, limited use of natural teeth, self evaluation and evaluation criteria. We make a concerted attempt to try to reinforce the importance of self-evaluation/evaluating one’s own work as a necessary means to being able to improve & correct errors</p> <p>Is there any OSCE exam in the operative course in your school? If Yes, please describe.</p> <p>No OSCE at this time (although including one in 1st year has been brought up, and may possibly happen this year)</p>
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b. Operative Faculty:

- i. How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?
- ii. How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.)

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>How many F/T 5 and P/T 20 faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? (for didactic P/T 2 facuties</p> <p>How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.) Morning Huddle and Combination of all and end of the session debriefing.</p>
Indiana	<p>How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? Currently, Indiana has three full time faculty that instruct in the Operative laboratory and didactic courses. The faculty take turns being the course director who is responsible for preparation and delivery of the lab and all the lectures. Part-time faculty also participate in the lab portion of the courses. These include licensed faculty (three, depending on the day), unlicensed dentists (three, grads of foreign dental schools or operative grad student) and six to eight fourth year dental students who fill in the rest of the laboratory spots.</p>

	<p>How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? The Indiana faculty feel they are well calibrated. Each faculty member (including the fourth year students) are required to view the lecture material and attend lectures. In addition to formal presentations, a meeting for all instructors is held before each lab session. At this meeting diagrams, photographs, ideal typodont examples, etc. are discussed and reviewed. Instructors are encouraged to ask questions and to refer any questionable student results to the course director. Lastly, grading is accomplished by the three full time faculty who have a decade of experience working together and are very well calibrated.</p>
<p>Michigan</p>	<p>Operative Faculty:</p> <p>How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? 8-11 in general, we are in the process of hiring 3 more faculty that will be basically in clinic and pre-clinic.</p> <p>How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.) Yes</p>
<p>Midwestern</p>	<p>How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? 13 full time, 39 part time (19 D1 and 20 D2)</p> <p>How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.) Weekly with PPT's of preps and grades.</p>
<p>Ohio State</p>	<p>How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? 12-14 depending on the semester.</p> <p>How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.) They attend lectures and are given examples of preparations and restorations that have been calibrated for different grades using a given Grading Criteria Sheet.</p>

<p>Pittsburg</p>	<p>How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? Full time faculty: 2 Part time faculty: 7</p> <p>How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.) There is a formal lecture prior to the simulation clinic. Also, previous preparations and restorations are on display along with their grade for all instructors to be calibrated. Also, while the students are setting up for the sim clinic there is an instructor meeting to further discuss the procedures the students will be completing and what aspects of the grading should be emphasized.</p>
<p>UIC</p>	<p>How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? We have 7 operative trained FT time and a number of PT faculty form the restorative department. For a class of 70, split in half, it varies. In a given course, the majority are 3 FT , probably 1 or 2 PT and 1 or 2 D4s as teaching assistants. The ratio is about 8 students per instructor.</p> <p>How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.) We ask all instructors to attend the didactic presentation so they understand what the students have been taught. The course director provides a key with the objectives of the session to cover during the students huddles. We do a morning huddle with faculty to make sure we all will cover the material and questions for the day. For grading we assign one criteria to each faculty, so that faculty will grade all 70 pulpal floor depth or retention form, etc.</p>
<p>West Virginia</p>	<p>How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? Amount of F/T, P/T varies per class and per semester based on availability. Instructors available is at the discretion of /schedule created by the Restorative Dentistry Dept. Chair. In general there is one course director, and ideally 4 support instructors, but many times cannot be accommodated. The course director usually develops a rotation schedule for the</p>

	<p>support/bench instructors. Many times a 4th yr teaching assistant is also present.</p> <p>How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.) It is the course director's responsibility to calibrate support faculty. This is completed by calibration sessions among faculty as well as adherence to rubric for grading. Support faculty are strongly encouraged to attend lectures by the course director for consistency in teaching. Calibration issues are also discussed in departmental meetings held once a month.</p>
Western Ontario	<p>How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses?</p> <p>-Varies by the session- usually 1 F/T and/or major P/T, occasionally 2, plus ideally ~8 P/T sessional instructors depending on availability (in practice this typically ranges from 5-8)</p> <p>How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.)</p> <p>-P/T faculty attend lectures, have access to evaluation criteria and to online material including photographs, verbal/informal conversations. Short instructions are given to row-instructors after lecture to review main points (i.e. "instructor huddle"). Occasional formal sessions have taken place, but are not a regular occurrence</p>

- c. How are patient treatment plans developed?
- i. Who is involved in the process?
 - ii. How are these patients then assigned to students?
 - iii. How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school?

Buffalo	No response
Case Western	No response
Detroit Mercy	How are patient treatment plans developed? Who is involved in the process? In Clinical dentistry division we

	<p>have 2 division directors who oversee undergrad clinics including University hospital center (UHC) they have six clinic leads working under them. The clinic leads have 20 DS3's 20 DS4's in the group and 1 DH2 students working. For developing treatment plan all Clinic Lead's and the faculty on the floor who work as Perio, Endo, Prosth, Comp Care are responsible ffor helping students developing treatment plan.</p> <p>How are these patients then assigned to students? PCC can assign new patients on students' availability, in the event of patient cancellation on same day or scheduled cancellation. Students screen the patient so the patient stay with them, the rule is students can transfer the patient twice if they no longer need to meet their experiences.</p> <p>How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school? 1-2 visit to collect date and treatment plan 3rd visit to start prophy.</p>
<p>Indiana</p>	<p>How are patient treatment plans developed?</p> <p>Who is involved in the process? Patients enter through a Screening Clinic manned by 3rd and 4th year students from one of 8 Comprehensive Care Clinics. They are under the supervision of their Clinic Director. During the screening, health history, screening exam and radiographs are taken. Initially patients are dispersed to the particular clinic who made the intake. Students in that clinic are then assigned to the patient based upon need, etc. although generally the student who completes the screening exam is allowed first choice to accept the patient as theirs. The assigned student, at the first appointment after screening, will perform a comprehensive oral exam which includes hard tissue and soft tissue exam (operative and perio and referral to other specialties as needed). From this exam a treatment plan is developed and entered into Axium by the attending faculty (usually Operative). Prosthetic treatment plans are typically performed by the Prosthodontic department after the patient has properly mounted cases and has conferred with Prosth faculty.</p> <p>How are these patients then assigned to students? In general, patients are assigned by the Clinic Director within the Comprehensive Care Clinc based upon the student's need and experience in handling the anticipated procedures.</p>

	<p>How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school? Undergraduate students are encouraged to contact the new patient as soon as possible. This results in the patient being seen in the clinic for a comprehensive oral exam within two to four weeks after intake. Patients with emergencies are expedited and seen as soon as practicable.</p>
Michigan	<p>How are patient treatment plans developed? In clinic with restorative faculty</p> <p>Who is involved in the process? Restorative Faculty and other specialty faculty according to the patient's needs.</p> <p>How are these patients then assigned to students? Patients and Clinical coordinators work together to find/assign patients to students</p> <p>How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school? Varies a lot, at least 4 months</p>
Midwestern	<p>How are patient treatment plans developed?</p> <p>Who is involved in the process? The Clinical Care Coordinator in conjunction with the Clinical Care Faculty members</p> <p>How are these patients then assigned to students? Based on students' educational needs as identified in the axium marker report generated daily, patients are assigned to a pair of students (D3 and D4)</p> <p>How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school? The goal is to address acute care needs the same day the patient is scheduled for the screening appointment. New patients will typically be seen within 2 weeks for their first appointment in the clinic</p>
Ohio State	<p>How are patient treatment plans developed? On the clinical floor with students and faculty.</p> <p>Who is involved in the process? Students and assigned faculty.</p> <p>How are these patients then assigned to students? Patients are screened at an intake appointment where a determination is</p>

	<p>made of the needs of the patient (Operative, fixed, removable, etc) and given to one of the Comprehensive Care Clinics where the Clinic Director assigns to students according to the student needs.</p> <p>How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school? 2-6 weeks except emergencies are cared for immediately.</p>
Pittsburg	<p>How are patient treatment plans developed? Treatment plans are created in the patient modules.</p> <p>Who is involved in the process? A team leader is the principle instructor who approves the treatment plan. These plans are only finalized after consultation with periodontists, prosthodontists and endodontists if necessary.</p> <p>How are these patients then assigned to students? The patient's first appointment is in our screening clinic. At this appointment, the patient is categorized as to the level of treatment needed and subsequently assigned to a team. It is the team leader who then assigns the patient to the appropriate student.</p> <p>How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school? Approximately a month, however it may be longer due to all the rotations our third year students are assigned to attend.</p>
UIC	<p>How are patient treatment plans developed? Students must complete initial examination, risk assessment and consultations prior to initiating the treatment plan processes. All diagnostic testing, appropriate radiographs, study models, etc must be available when the student presents a preliminary treatment plan to the "comprehensive" instructor who is supervising the patient's case. After the review with the "comprehensive" instructor is complete, students gain additional approvals as needed. This may include the periodontist, endodontist, orthodontist, oral surgeon, and faculty supervising implant or digitally fabricated restorations. Upon final review and approval of the "preliminary plan", as well as alternatives, the student presents the plan to the patient. Once the patient is in support of the plan (or alternative), the "comprehensive" instructor provides final approval in the axiUm module.</p>

	<p>Who is involved in the process? See above</p> <p>How are these patients then assigned to students? Patients are screened by students and supervising faculty to determine if the oral health needs can be provided in a student clinic setting. Cases that are too complex dentally, or patients who have an extreme number of comorbidities (ASA 3 or 4) are not accepted for care. If the student screening the case is in need of the care experience, the patient is assigned to them. If not, the patient is assigned by the Managing Partner to a student who would benefit from the care experiences.</p> <p>How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school? Once a patient is screened and accepted for care, the comprehensive evaluation and treatment planning process begins. Depending on student and the patient's availability, it can be initiated as soon as one week, or may be up to 8 weeks. Typically the comprehensive care examination and consultations require two appointments, and at the third appointment, the treatment plan is reviewed and accepted, and care can begin.</p>
<p>West Virginia</p>	<p>Who is involved in the process? Team Leaders (5) supervise students in an initial assessment clinic (rotation). Information (Med history, Dental history, orofacial exam, completion of odontogram, radiographs etc.) is gathered. A problem list is created (list of needs.) The school's patient care coordinator reviews the problem list and assigns to a student for treatment planning (next/ separate appointment.) The assigned student completes necessary departmental consultations at the tx planning appt, and tx plan is created (sometimes not completed until after a pros review—with study casts-- for more complex pros cases). Team leaders will identify if case is too complex for student clinic, and will recommend assignment/appointment in grad pros; same for patients with complex medical needs-team leader will recommend assignment to GPR resident program.</p> <p>How are these patients then assigned to students? (See previous response)</p> <p>How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school?</p>

	<p>Usually treatment begins at the third appointment (First appt is initial assessment, second is treatment planning, third tx). For less complex cases, sometimes prophylaxis can be completed at treatment planning. Also, a recruited family member that is not a complex case may have initial assessment and tx planning completed in same appt.</p>
<p>Western Ontario</p>	<p>How are patient treatment plans developed? Who is involved in the process? Students develop treatment plans along with Oral Diagnosis faculty, which may include consultations by various other Divisions. Occasionally, some "limited treatment" patients may have small treatment plans developed directly in Operative or Multi-disciplinary cubicles by covering faculty</p> <p>How are these patients then assigned to students? Patients are generally assigned to students after screening but prior to actual treatment plan development, unless it is a patient being "handed down" by a graduating student who was unable to finish the treatment plan. The students have mentors who are responsible for assigning patients to them according to their needs.</p> <p>How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school? From initial contact (i.e. the day the patient first enters the school and fills out an application to be screened to become a new patient) it can be 2+ years before actual treatment begins (by the time they are screened, assigned to a student, diagnosed and treatment planned and then brought for treatment) From the point when screening is completed until the beginning of treatment, the time generally ranges from ~45 days to 3 months.</p>

VII. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?
 - i. If No, why not?
 - ii. If Yes, is it mandatory or optional?
 - iii. If Yes, do students use them during licensing examinations?
 - iv. If Yes, please list the specific product(s), color(s), and manufacturer(s).

- b.** Does your school use any caries detection devices as part of the clinical protocol?
- i. If Yes, please list the specific product(s) and manufacturer(s).
 - ii. If Yes, please provide the clinical protocol.

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol? Taught in didactic course however not used on the clinic floor</p> <p>If No, why not? No don't know why? (It would be good)</p> <p style="padding-left: 40px;">If Yes, is it mandatory or optional?</p> <p style="padding-left: 40px;">If Yes, do students use them during licensing examinations? We have it in the clinics if they want to use it</p> <p style="padding-left: 40px;">If Yes, please list the specific product(s), color(s), and manufacturer(s).</p> <p>Does your school use any caries detection devices as part of the clinical protocol? No we don't (We have trans-illumination, however, not a protocol)</p>
Indiana	<p>We do not use caries detecting dyes because:</p> <p>The existing literature regarding their reliability is, at best, equivocal.</p> <p>The dyes tend to stain non-carious and "affected" dentin, which leads to excessive removal of tooth structure.</p> <p>They also stain GI and resin composites.</p> <p>Current opinion tends to favor selective caries removal (i.e., complete carious tissue removal along the periphery to ensure adequate marginal sealing; selective removal in deeper lesions to preserve pulpal vitality).</p> <p>We discuss caries detection devices in our D2 didactic curriculum, but do not use them in the clinical setting. We have previously conducted laboratory sessions to introduce these devices to the students, but have discontinued.</p>
Michigan	<p>Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?</p> <p>If No, why not? No. It is available but it is not required. Why? Some faculty don't like it how it stains dental structure with left too long</p> <p>If Yes, is it mandatory or optional? optional</p>

	<p>If Yes, do students use them during licensing examinations? no</p> <p>If Yes, please list the specific product(s), color(s), and manufacturer(s).</p> <p>Does your school use any caries detection devices as part of the clinical protocol? No</p>
Midwestern	<p>Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol? No</p> <p>If No, why not? Clinical Faculty is of the opinion that caries detecting dyes leads students to a false sense of security and oftentimes leads to overtreatment</p> <p>Does your school use any caries detection devices as part of the clinical protocol? No</p>
Ohio State	<p>Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?</p> <p>Does your school use any caries detection devices as part of the clinical protocol? No.</p>
Pittsburg	<p>Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?</p> <p>If No, why not? No.</p> <p>Does your school use any caries detection devices as part of the clinical protocol? No.</p>
UIC	<p>Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol? We do not use neither in preclinical or clinical sessions. During the caries excavation exercise in preclinical activities, we ask the students to use a caries detection dye (Sable Seek from Ultradent) to see how it works. The students review the evidence in advanced and then discuss the results and experience of their caries excavation using caries detecting dyes another adjunct aids for caries detection such as Soprolife.</p> <p>If No, why not? Most clinical investigations have concluded that conventional tactile and optical criteria are the most satisfactory</p>

	<p>assessment of caries status during cavity preparation and that subsequent use of a caries-detector dye could result in unnecessary removal of sound tooth tissue. Dye-stainable status is not a good predictor for the presence or absence of bacteria in dentin and lacks the necessary specificity for the accurate detection of carious dentin. Also a caries detecting dye is intended to stain infected dentin but in reality stains also the organic matrix of less mineralized dentin that does not necessarily requires removal. Also absence of stain does not ensure the elimination of bacteria which might be clinically irrelevant. For that reason we only encourage the use of tactile and visual criteria for the process of caries excavation. Reference: Mc Comb D. <i>J Can Dent Assoc</i> 2000; 66:195-8</p>
<p>West Virginia</p>	<p>Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol? Yes used, is NOT part of a protocol.</p> <p>If No, why not?</p> <p>If Yes, is it mandatory or optional? Optional for use, unless clinical instructor advises otherwise</p> <p>If Yes, do students use them during licensing examinations? Yes, If they choose</p> <p>If Yes, please list the specific product(s), color(s), and manufacturer(s). Snoop -Pulpdent</p> <p style="text-align: center;">Unit dose methylene blue was tried, but faculty did not feel it was as useful/effective as Snoop.</p> <p>Does your school use any caries detection devices as part of the clinical protocol? Not as protocol, but are available</p> <p>If Yes, please list the specific product(s) and manufacturer(s). Soprolife/ Soprocure intraoral cameras in CARIO Mode—by Aceton; Diagnodent—Kavo; FOTI.</p>
<p>Western Ontario</p>	<p>Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?</p> <p style="text-align: center;">No</p> <p>If No, why not?</p> <p style="text-align: center;">Questionable usefulness- they result in too much</p>

	<p>unnecessary dentin removal</p> <p>Does your school use any caries detection devices as part of the clinical protocol?</p> <p>No</p>
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VIII. Materials and Techniques

a. Isolation:

- i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?

- 1. If Yes, please describe.

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>Isolation:</p> <p>If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods? With the new integrated curriculum in the sim lab, we are expecting that all the restorations should be done under rubber dam assuming that all clinic conditions are favorable.</p> <p style="text-align: center;">No, only cotton roll isolation, dry angle</p>
Indiana	<p>Isolation- methods available other than rubber dam when placing a composite resin include:</p> <p>Traditional use of cotton rolls, dry angles, suction, etc</p> <p>Graduate Operative Clinic- set up for use of Isolite device</p> <p>Graduate Operative Clinic- Optragate device available, potential availability in future in D3 Operative Discipline Clinic</p> <p>D4 Comp Care- see above</p>
Michigan	<p>Isolation: If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods? Optragate</p>
Midwestern	<p>If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods? Yes</p> <p>If Yes, please describe. In case rubber dam is not feasible to place a composite resin the clinic protocol is to use amalgam or glass ionomer to restore. Faculty can also grant an exception to the use of the rubber dam and allow Iovac isolation</p>

Ohio State	<p>Isolation:</p> <p>If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?</p> <p>If Yes, please describe. A few Isolites.</p>
Pittsburg	<p>Isolation:</p> <p>If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods? Yes.</p> <p>If Yes, please describe. The protocol for isolation is first a rubber dam, followed by the Iovac system.</p>
UIC	<p>Isolation:</p> <p>If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?</p> <p>If Yes, please describe. Yes, there are guidelines and indications listed in case RDI is not possible. The indication for a composite might change to a more forgiving material such as amalgam (If possible). Composite restorations are discouraged in case RDI is not possible. Other methods of isolation are listed as alternatives such as: cotton rolls, dry angles, Isolite (Pedo clinic) and 4 handed dentistry to assist on moisture control. The following paragraph is extracted form our Restorative Dept. philosophy: Use rubber dam isolation for operative dentistry procedures. <u>Rubber dam isolation must be used unless the supervising instructor determines that it is not indicated.</u> It is well documented that current bonding systems cannot produce clinically acceptable results when isolation is lacking. Rubber dam isolation techniques are still a critical part of most licensure examinations and students need to master proper techniques. Rubber dam isolation helps prevent contamination of the operating area and is an essential aid for protection of the practitioner as well as the patient. In restoration of posterior teeth, isolate at least one tooth posterior to the tooth to be restored and extend the rubber dam to the midline or to the opposite canine. For anterior restorations, isolate the entire anterior portion from first bicuspid to first bicuspid. When</p>

	<p>conditions permit, other than for gingival retraction for cervical lesions, do not place a retainer on the tooth to be restored. Single tooth isolation is not often used for restorative dental procedures.</p>
West Virginia	<p>If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?</p> <p>If Yes, please describe. No specific protocol, but cotton roll, dri-angle, Isolite system, cord packing, etc are utilized. Students are taught if cannot isolate, cannot place composite.</p>
Western Ontario	<p>Isolation:</p> <p>If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?</p> <p>If Yes, please describe. Depending on the clinical situation, options may include retraction cord, dri-angles, cotton rolls, gauze, disposable Svedoptors, or in posterior situations, the use of the open sandwich technique or placement of amalgam instead of composite.</p>

a. Adhesives:

- i. How many composite bonding systems do you have in your pre-doctoral clinic?
 1. List each system by classification, product name, and manufacturer:
 - a. 4th generation – Three-step Etch-Rinse
 - i. Etch. Rinse. Prime. Bond.
 1. e.g. – Optibond (Kerr)
 - b. 5th generation – Two-step Etch-Rinse
 - i. Etch. Rinse. (Prime+Bond).
 1. e.g. – Prime & Bond (Dentsply)
 - c. 6th generation – Two-step Self-etch
 - i. (Etch+Prime). Bond.
 1. e.g. – Clearfil SE (Kuraray)
 - d. 7th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 1. e.g. – Prompt L Pop (3M ESPE)
 - e. 8th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 1. e.g. – Futura bond DC (VOCO America)

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>How many composite bonding systems do you have in your pre-doctoral clinic? Two</p> <p>List each system by classification, product name, and manufacturer:</p> <p style="padding-left: 40px;">4th generation – Three-step Etch-Rinse Etch. Rinse. Prime. Bond. For pre-clinical exercise only: Optibond FL (Kerr)</p> <p style="padding-left: 40px; color: red;">5th generation – Two-step Etch-Rinse Etch. Rinse. (Prime+Bond). Optibond Solo Plus (Kerr)</p> <p style="padding-left: 40px;">6th generation – Two-step Self-etch (Etch+Prime). Bond. e.g. – Clearfil SE (Kuraray)</p> <p style="padding-left: 40px; color: red;">7th generation – One-step Self-etch (Etch+Prime+Bond). Optibond All-in-One (kerr)</p> <p style="padding-left: 40px;">8th generation – One-step Self-etch (Etch+Prime+Bond). e.g. – Futura bond DC (VOCO America)</p>
Indiana	<p>Adhesives- one system available for undergraduate clinic/graduate clinic: Optibond Solo Plus- etch/ bond: Total etch adhesive/ Kerr All classes are discussed with regards to usage, material, etc. in D3 Dental Materials Course</p>
Michigan	<p>How many composite bonding systems do you have in your pre-doctoral clinic? 1 system. Optibond solo plus</p>
Midwestern	<p>How many composite bonding systems do you have in your pre-doctoral clinic?</p> <p>List each system by classification, product name, and manufacturer:</p> <p style="padding-left: 40px;">4th generation – Three-step Etch-Rinse Etch. Rinse. Prime. Bond. e.g. – Optibond (Kerr) None</p> <p style="padding-left: 40px;">5th generation – Two-step Etch-Rinse</p>

	<p>Etch. Rinse. (Prime+Bond). Excite F-Ivoclar e.g. – Prime & Bond (Dentsply)</p> <p>6th generation – Two-step Self-etch ii. (Etch+Prime). Bond. None e.g. – Clearfil SE (Kuraray)</p> <p>7th generation – One-step Self-etch iii. (Etch+Prime+Bond). None e.g. – Prompt L Pop (3M ESPE)</p> <p>8th generation – One-step Self-etch. Adhese SE Universal (Etch+Prime+Bond). e.g. – Futura bond DC (VOCO America)</p>
Ohio State	<p>How many composite bonding systems do you have in your pre-doctoral clinic?</p> <p>List each system by classification, product name, and manufacturer:</p> <p>4th generation – Three-step Etch-Rinse Yes Etch. Rinse. Prime. Bond. e.g. – Optibond (Kerr)</p> <p>5th generation – Two-step Etch-Rinse No. Etch. Rinse. (Prime+Bond). e.g. – Prime & Bond (Dentsply)</p> <p>6th generation – Two-step Self-etch No. (Etch+Prime). Bond. 1. e.g. – Clearfil SE (Kuraray)</p> <p>7th generation – One-step Self-etch Yes (Etch+Prime+Bond). e.g. – Prompt L Pop (3M ESPE)</p> <p>8th generation – One-step Self-etch No (Etch+Prime+Bond). e.g. – Futura bond DC (VOCO America)</p>

Pittsburg	<p>How many composite bonding systems do you have in your pre-doctoral clinic? One</p> <p>List each system by classification, product name, and manufacturer:</p> <p style="padding-left: 40px;">4th generation – Three-step Etch-Rinse Etch. Rinse. Prime. Bond. e.g. – Optibond (Kerr)</p> <p style="padding-left: 40px;">5th generation – Two-step Etch-Rinse Etch. Rinse. Then place the Prime and Bond NT.</p> <p style="padding-left: 40px;">6th generation – Two-step Self-etch (Etch+Prime). Bond. e.g. – Clearfil SE (Kuraray)</p> <p style="padding-left: 40px;">7th generation – One-step Self-etch (Etch+Prime+Bond). e.g. – Prompt L Pop (3M ESPE)</p> <p style="padding-left: 40px;">8th generation – One-step Self-etch (Etch+Prime+Bond). e.g. – Futura bond DC (VOCO America)</p>
UIC	<p>How many composite bonding systems do you have in your pre-doctoral clinic? One only:</p> <p>Two steps-Etch and rinse: Scotchbond multipurpose from 3M (Total etch mode)</p>
West Virginia	<p>How many composite bonding systems do you have in your pre-doctoral clinic? 1</p> <p>We are using OptiBond XTR by Kerr in the pre-clinic laboratory. It is considering a Universal bonding agent, but it is used with a selective etch technique for the enamel, followed by the two-step self-etching</p>

	<p>primer for the dentin. We are using Adhese Universal by Ivoclar in the student clinics. It is also considered a Universal bonding agent, and is also used with a selective etch technique for the enamel, followed by the Adhese can be used in a self-etching technique, the selective- enamel- etch technique, or the three-step etch-rinse technique.</p>
Western Ontario	<p>How many composite bonding systems do you have in your pre-doctoral clinic?</p> <p>Two</p> <p>List each system by classification, product name, and manufacturer:</p> <ul style="list-style-type: none"> - 5th generation, Peak (Ultradent) -Universal, Scotchbond Universal (3M ESPE)

2. Are your students and faculty provided with specific indications and guidelines for their use?
 - a. If Yes, please provide the indications and guidelines.

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>Are your students and faculty provided with specific indications and guidelines for their use? Yes</p> <p>If Yes, please provide the indications and guidelines.</p> <p>Total etch 3 steps</p> <p>Acid etching (37% phosphoric acid); 30 seconds enamel; 15 seconds dentin; Rinse for 30 seconds; DRY enamel, leave dentin MOIST (absorbing paper); Primer; Passive application in dentin for 10 seconds; Gentle air blow for 30 seconds; Bond; Passive application on all preparation for 10 seconds; Gentle air blow for 30 seconds; Light-activation for 20 seconds.</p> <p>Total etch 2 steps</p> <p>Acid etching (37% phosphoric acid); 30 seconds enamel; 15 seconds dentin; Rinse for 30 seconds; DRY enamel, leave dentin MOIST (absorbing paper); [Primer + Bond]; Passive application on all preparation for 10 seconds; Gentle air blow for 30 seconds;</p>

	<p style="color: red;">Light-activation for 20 seconds. SELF etch 1 step (UNIVERSAL) [Acid Primer* + Bond]; Active application in DRY dentin for 10 seconds; Gentle air blow for 30 seconds; Light-activation for 20 seconds.</p>
Indiana	D1s primarily get presented usage & material make-up of bonding agent they will be using in the clinics
Michigan	<p>Are your students and faculty provided with specific indications and guidelines for their use? Yes</p> <p>If Yes, please provide the indications and guidelines. We use double layer of bond system (Nor, 2001), sealants we don't cure bonding agent, we add the sealant over it and cure both together (Feigel, 2002)</p>
Midwestern	<p>Are your students and faculty provided with specific indications and guidelines for their use? No</p> <p>If Yes, please provide the indications and guidelines.</p>
Ohio State	Are your students and faculty provided with specific indications and guidelines for their use? No.
Pittsburg	<p>Are your students and faculty provided with specific indications and guidelines for their use? Yes.</p> <p>If Yes, please provide the indications and guidelines. Guidelines are posted in each module. Also, the students have learned the proper procedure in their pre-clinical composite course. All composite restorations are to be bonded using Prime & Bond NT. The proper protocol is to etch the enamel first then etch the dentin. The total etch time for enamel is 30 seconds and dentin 15 seconds. The etch is rinsed for 30 seconds. Prime& Bond NT is applied and polymerized for 20 seconds.</p>
UIC	<p>Are your students and faculty provided with specific indications and guidelines for their use? Yes, the restorative department has a philosophy guidelines for the use of Scotchbond multipurpose</p> <p>If Yes, please provide the indications and guidelines. From our philosophy document: In order to obtain</p>

	<p>clinically acceptable bonded restorations, the clinician must consider the limitations of the material, provide a contamination-free environment for its use and manipulate the material appropriately (follow manufactures' instructions).</p> <p>The dentin must remain moist, though not excessively moist, while the primers are applied. Formation of a <i>hybrid layer</i>, resin-impregnated collagen layer, is vital for effective dentin bonding.</p> <p>The technique for removal of the smear layer, conditioning and priming of dentin varies, depending on the bonding concept designed for each specific material. The current systems approved for use in the UIC clinics are:</p> <p>Scotchbond Multipurpose-#M (total etch mode) (8th generation): The acid-etching step is done prior to the use of the bonding agent that contains the primer and the bonding resin.</p>
<p>West Virginia</p>	<p>Are your students and faculty provided with specific indications and guidelines for their use? Yes</p> <p>If Yes, please provide the indications and guidelines.</p> <p>We follow the manufacturers instructions for the indications and guidelines for the bonding agent we use in the pre-clinical courses (Optibond XTR) and the clinical courses (Adhese Universal). These instructions are provided to the students and faculty and are posted on our intranet site. The indications for use for both Optibond and Adhese include direct bonding applications (light-cured and compomer restorations, composite/metal/ceramic repairs, cavity sealing for amalgam restorations, core build-ups- light cured, self-cured, and dual cured, and for sealing of hypersensitive and/or exposed root surfaces. The instructions for use of Optibond XTR in direct restorations include applying Optibond XTR primer to the enamel/dentin surface with a brushing motion for 20s, air thin for 5 seconds with medium air pressure, shake the Optibond XTR adhesive bottle briefly, apply the adhesive to the enamel/dentin surface with a light brushing motion for 15 seconds, air thin for 5 seconds, and light cure for 10 seconds. As stated previously, we do selectively etch any uncut enamel with phosphoric acid for 15 seconds prior to the Optibond XTR usage. The instructions for use for the Adhese Universal pen we use are</p>

	<p>the selective etching of the enamel with phosphoric acid get for 15-20s, rinse thoroughly with a vigorous stream of water for at least 5s, and dry with medium air pressure. We then activate the click mechanism of the VivaPen 2-3 times until the cannula tip is sufficiently coated, then we start with the enamel and scrub both the enamel and dentin with the adhesive (used like the 8th generation one-step self-etch products) for at least 20s, lightly air thin, and light cure for 10s. Although these are the two bonding systems we use, the students are very proficient on the proper use of all generations of bonding systems.</p>
Western Ontario	<p>Are your students and faculty provided with specific indications and guidelines for their use? Yes</p> <p>If Yes, please provide the indications and guidelines.</p> <p>Scotchbond is used for the adhesive cementation of ceramic onlays using Rely X Arc.</p> <p>Scotchbond and Peak are both used for direct composite restorations.</p> <p>Students are taught about/exposed to both products during lectures and preclinical sessions.</p> <p>There is a board in the clinic explaining the use and indications of the materials; i.e. how Scotchbond Universal may be used in different modes (etch & rinse, self-etch or selective mode).</p>

c. Light Curing

- i. When is light curing taught in the curriculum and how much time is devoted to the topic?
- ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit?
- iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own?
- iv. What specific curing light(s) do you have available?
 1. Please list name(s) and manufacturer(s)
- v. What protocols are in place to ensure the proper use of your light curing system(s)?
- vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)?

Buffalo	No response
Case Western	No response
Detroit Mercy	When is light curing taught in the curriculum and how much time is devoted to the topic? First semester – 1 hour didactic + 1

hour practical

Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? **Provided**

Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? **Provided**

What specific curing light(s) do you have available?

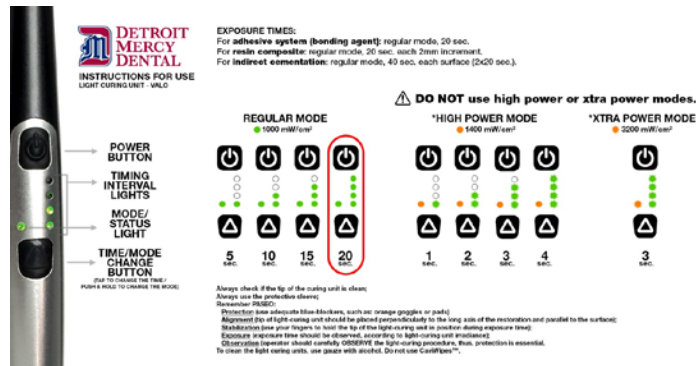
Please list name(s) and manufacturer(s)

VALO (Ultradent) - Clinic

Demi Plus (Kerr)

3M Halogen lights

What protocols are in place to ensure the proper use of your light curing system(s)? **P.A.S.E.O. Technique (Dr. Rueggeberg) + guide**



What protocols are in place to ensure the proper maintenance of your light curing system(s)? **Dispensary? Clean the light curing unit tip, use film protectors, etc.**

Indiana

Light Curing

Curing light techniques are taught primarily in D1 year- both semesters in Pre-Clinical Operative courses & Dental Materials courses

Reinforcement of information occurs in D2 & D3 years

D1 students receive a curing light in their D1 instrument issue

Used to be Kerr Demi-light

Currently- Valo Grand Curing light (Ultradent)

In D3 Operative Clinics- students are supposed to bring their own lights from Instrument Issue

Curing lights are available if they forget- Ivoclar Bluephase

In D4 Comp Care- again, supposed to bring own light from issue

New units in Fritts contain a Miniled Aceton Safetec light

	<p>Lights available D1 issue- Valo Grande Curing light package (Ultradent) D3 clinic- use issued light or Ivoclar Bluephase D4 Fritts clinics/Comp Care- Miniled Aceton Safetec in Fritts</p> <p>Protocols to ensure proper use of light Given in pre-clinical courses and dental materials courses: D1 Re-enforcement given in D2 & D3 pre-clinical courses & labs and dental materials course</p> <p>Protocols to ensure proper maintenance of curing lights Directions given on care & maintenance in D1 pre-clinical Operative course and dental materials course Re-enforcement provided to D2 & D3 students in same manner Directions are available in D3 Operative Clinic & D4 Comp Care for viewing for students & faculty as needed</p>
Michigan	<p>Light Curing When is light curing taught in the curriculum and how much time is devoted to the topic? 1-2 hours Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? provided Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? provided What specific curing light(s) do you have available? Please list name(s) and manufacturer(s) Ultradent Ultralume Led 5 What protocols are in place to ensure the proper use of your light curing system(s)? We teach the students to incrementally add and cure the composites and after the final increment cure it again from different angles B/L What protocols are in place to ensure the proper maintenance of your light curing system(s)? Maintenance once a month</p>
Midwestern	<p>When is light curing taught in the curriculum and how much time is devoted to the topic? 4 hours of lecture split between D1 and D2 year, two hours rotation w/Marc unit/bonding.</p> <p>Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? Provided</p> <p>Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? Provided</p>

	<p>What specific curing light(s) do you have available?</p> <p>Please list name(s) and manufacturer(s) Valo (Ultradent) in preclinic and Bluephase (Ivoclar) in clinic</p> <p>What protocols are in place to ensure the proper use of your light curing system(s)? The quantitative and qualitative output of ALL curing lights used in the clinic is measured monthly and recorded in an excel spreadsheet. Students are following the protocol as established by evidence based dentistry in the preclinical curriculum</p> <p>What protocols are in place to ensure the proper maintenance of your light curing system(s)? Monthly testing</p>
Ohio State	<p>When is light curing taught in the curriculum and how much time is devoted to the topic? In operative 2. 1 class period with reminders in several lectures.</p> <p>Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? Provided in the lab not purchased by the students.</p> <p>Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? ? Provided in the lab not purchased by the students.</p>
Pittsburg	<p>When is light curing taught in the curriculum and how much time is devoted to the topic? One hour.</p> <p>Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? They are now required to purchase.</p> <p>Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? They are provided to the students.</p> <p>What specific curing light(s) do you have available?</p> <p>Please list name(s) and manufacturer(s): Kerr Demi Light</p> <p>What protocols are in place to ensure the proper use of your light curing system(s)? The proper use of the curing light is the responsibility of the student. However, our restorative faculty may supervise the student.</p>

	<p>What protocols are in place to ensure the proper maintenance of your light curing system(s)? Dispensary staff are supposed to check monthly.</p>
<p>UIC</p>	<p>When is light curing taught in the curriculum and how much time is devoted to the topic? It is thought with adhesive dentistry during Y1 (fall semester). It is a component of a lecture of resin composite, not a separate session.</p> <p>Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? Curing lights are provided to the students.</p> <p>Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? Curing lights are provided to the students</p> <p>What specific curing light(s) do you have available?</p> <p>Please list name(s) and manufacturer(s) For patient care clinics are either Kerr's Demi Plus light or Ivoclar's Bluephase G2</p> <p>For preclinics- Super Dental Wireless LED Light</p> <p>What protocols are in place to ensure the proper use of your light curing system(s)? Students are provided information in checking the curing light, particularly cleanlinesses of the tip. Clinical technique is given to assure close proximity of the curing light to the surface of the tooth being restored. Standard curing of 20 seconds for adhesive systems and 40 seconds per layer of resin composite</p> <p>What protocols are in place to ensure the proper maintenance of your light curing system(s)? There is minimal maintenance done on them other than disinfection following patient usage. The functionality of the light is tested using a light meter. When we first starting using the Ivoclar lights, the sales rep came to the school and actually tested ALL Kerr and Ivoclar lights.</p>
<p>West Virginia</p>	<p>When is light curing taught in the curriculum and how much time is devoted to the topic? It is taught during the Introduction to Tooth Colored Restorations course during the summer following the 1st year of instruction. One individual lecture and lab are devoted entirely to light curing, and then we discuss light</p>

	<p>curing during each subsequent lecture and laboratory involving composite placement. In the advanced course, another light curing lecture is provided, as well.</p> <p>Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit?</p> <p>Curing lights are required for purchase as part of the student kit.</p> <p>Are curing lights provided for the students in the pre-doctoral clinics or do they use their own?</p> <p>Since the lights are required for purchase as part of their kit, each student is responsible for bringing their own light to both pre-clinic laboratories and the clinic setting.</p> <p>What specific curing light(s) do you have available?</p> <p>Please list name(s) and manufacturer(s)</p> <p>We use the Valo light by Ultradent.</p> <p>What protocols are in place to ensure the proper use of your light curing system(s)?</p> <p>Radiometers are available for use in both of the composite laboratories, and it is recommended that once the students are in the clinic, they frequently check the output of their lights with the radiometers located in the supply store.</p> <p>What protocols are in place to ensure the proper maintenance of your light curing system(s)?</p> <p>We had the students purchase the most durable light on the market. The light has a cord, so the students do not have to be responsible for charging the light, and they use disposable sleeves on the curing light to prevent contamination of the light or lens.</p>
<p>Western Ontario</p>	<p>Light Curing</p> <p>When is light curing taught in the curriculum and how much time is devoted to the topic? It is a component of 2 classes in Year 1- it is introduced when students receive their curing light in the 3rd class, then is taught in more detail the following class, as a component of a composite resin Biomaterials lab. Total time is approximately 2-3 hrs</p>

	<p style="color: red;">A 1 hour lecture/review on light curing units will also be presented in the 2nd year course (new this year), and has been presented previously in 4th year in the Integrated Restorative course.</p> <p>Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit?- They are a part of the student kit</p> <p>Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? The students use their own curing lights throughout all 4 years of the dental program</p> <p>What specific curing light(s) do you have available? Please list name(s) and manufacturer(s) Ivoclar/Vivadent Bluephase</p> <p>What protocols are in place to ensure the proper use of your light curing system(s)? -Use of plastic cover sleeves to prevent resin contamination of glass rod -Education regarding proper position and time for ideal cure.</p> <p>What protocols are in place to ensure the proper maintenance of your light curing system(s)? -Special Manufacturer’s Warranty- will be repaired/replaced during students’ time at dental school -In house repair technicians for simple problems -Loaner lights available -Lights are checked with a light meter upon initial opening to ensure that they are functioning correctly when new</p>
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IX. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission?
 - i. If Yes, describe what is required of the applicant.

Buffalo	No response
Case Western	No response
Detroit Mercy	Does your school have applicants to your four-year DDS program participate in bench testing prior to admission? We do not have a bench test prior to admission. We are trying to implement a bench test for our Accelerated DDS program starting next year.

Indiana	This is not a requirement to the 4 year DDS program, but is a requirement for the International Dentist Program.
Michigan	Yes; Watch a video before the interviews, participate in a workshop about bias
Midwestern	No
Ohio State	No
Pittsburg	No. The only applicants subject to a bench test are the international students but they are not part of our four year curriculum.
UIC	No
West Virginia	No
Western Ontario	No

- b.** What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)
- i. Are all students who fail eligible for remediation?
 1. If No, what circumstances would not allow remediation?
 - ii. Do all students eventually pass remediation?
 1. If No, what happens to them?
 - iii. How do you remediate students who fail the didactic program?
 - iv. How do you remediate students who fail the laboratory simulation program?

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>What is your department policy for remediation should a student fail a didactic course or a laboratory course? In sim lab we have comprehensive grade for didactic and sim lab exercises, if the students fails any simlab competencies, they then have to remediate at 70% maximum, if they fail, a second remediation is offered at maximum 60% then 50%, after three attempts the students have to meet with the academic dean. We do not have a remediation policy for didactic courses.</p> <p>Are all students who fail eligible for remediation? If No, what circumstances would not allow remediation?</p> <p>Do all students eventually pass remediation? Based on the outcome from the Academic Progress committee, they occasionally repeat the year, depending on the academic progress committee's decision.</p> <p>If No, what happens to them?</p> <p>How do you remediate students who fail the didactic program?</p>

	<p>Our courses do not have a policy to remediate didactic course. How do you remediate students who fail the laboratory simulation program? By offering them a time to see the faculty, give them feedback on the exercise they need to remediate, and setting up a remediation after few practice sessions, so the student feels comfortable to remediate.</p>
<p>Indiana</p>	<p>What is your department policy for remediation should a student fail a didactic course or laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.) Are all students who fail eligible for remediation? If No, what circumstances would not allow remediation? All students are not allowed to go through remediation. If they receive below a 65%, they would not be allowed to remediate and would automatically fail the course. However, if they receive a 65%-69.9%, they are allowed to remediate the course.</p> <p>Do all students eventually pass remediation? All students do not pass remediation. They are given one chance that in which the method is at the discretion of the course director. If they fail, they are up for dismissal or repeating the year as determined by the progress committee.</p> <p>If No, what happens to them? As mentioned earlier, they will be up for dismissal or repeating the year as determined by the progress committee. The progress committee will also compare that against how they are performing in other courses before making a determination. IUSD just recently instituted a policy effective for this academic year (2018-2019) that limits remediations to 3 per student for their entire time as a student. This was instituted in order to identify struggling students earlier and make a determination than let them repeat many courses and ultimately not be able to pass the dental school curriculum satisfactorily or pass boards.</p> <p>How do you remediate students who fail the didactic program? They are remediated through some sort of exam in which the format is at the discretion of the course director. It may be multiple choice, fill in the blank, essay, or even an oral examination.</p>

	<p>How do you remediate students who fail the laboratory simulation program? They are remediated often through redoing projects or repeating practicals or a combination of both. The decision on how to best remediate is often in keeping with where they struggled most. Additional projects may be added to give additional feedback and get their hand skills up to speed before they retake the remediation practical. However, the remediation must be completed in a satisfactory manner that would result in a passing project or practical. If that is done, their grade will be moved to a 70% or C-.</p>
Michigan	<p>What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.) There is no policy, up to the course directors. I am actually in a process of discuss the topic of implementing a remediation policy to the school after our meeting.</p> <p>Are all students who fail eligible for remediation? Yes If No, what circumstances would not allow remediation? Do all students eventually pass remediation? If No, what happens to them? No, they appeal to the executive committee. They may be or not granted another chance.</p> <p>How do you remediate students who fail the didactic program? Another written test</p> <p>How do you remediate students who fail the laboratory simulation program? Students will be given another practice time of that particular assessment and then take a remediation practical assessment. Minimum passing score is 70.</p>
Midwestern	<p>What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.) Didactic and simulation clinic-cumulative examination.</p> <p>Are all students who fail eligible for remediation? Yes, unless they fail two courses in the same quarter.</p> <p>If No, what circumstances would not allow remediation? Do all students eventually pass remediation? No, approximately 90%.</p> <p>If No, what happens to them? They are given the option of returning the following year and repeating that course.</p>

	<p>How do you remediate students who fail the didactic program? Meet with faculty and must pass a cumulative test.</p> <p>How do you remediate students who fail the laboratory simulation program? Two week one on one remediation and retake all practical projects.</p>
Ohio State	<p>What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.) There are in course remediation times scheduled on Friday mornings for all hand courses as well as opportunities for retesting in the course time.</p> <p>Are all students who fail eligible for remediation? Yes.</p> <p>If No, what circumstances would not allow remediation?</p> <p>Do all students eventually pass remediation? No.</p> <p>If No, what happens to them? They are either separated from school or allowed to repeat the courses in an extra year or semester.</p> <p>How do you remediate students who fail the didactic program? Give them a review over the break and let them retake the test(s).</p> <p>How do you remediate students who fail the laboratory simulation program? Friday mornings or remediation during break time.</p>
Pittsburg	<p>What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)</p> <p>Are all students who fail eligible for remediation? Yes.</p> <p>If No, what circumstances would not allow remediation?</p> <p>Do all students eventually pass remediation? No</p> <p>If No, what happens to them? If they fail the remediation they are potentially dismissed from the dental school. They have an appeal process with the Dean making the final decision.</p> <p>How do you remediate students who fail the didactic program? The instructor gives them another exam which they must pass to pass the course. The instructor will provide guidance to the students if the student desires.</p> <p>How do you remediate students who fail the laboratory simulation program? It is up to the discretion of the course director. Normally, more procedures have to be completed to an acceptable level.</p>

<p>UIC</p>	<p>What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)</p> <p>Are all students who fail eligible for remediation? All students are given an opportunity to review material and practice skills with instructor feedback and are then allowed to attempt to remediate any failed course component. Students who do not remediate successfully on their first attempt are referred to the UIC Subcommittee on Student Promotion. Each course director forwards a recommendation regarding additional remediation to be allowed and a specific plan for remediation. The course director may also make a recommendation to not allow additional remediation attempts. The SSP considers student performance in all aspects of the curriculum and then makes a decision that may be to allow additional remediation attempts, to repeat an academic year, or to be dismissed from the College. If No, what circumstances would not allow remediation? All students are given an initial attempt to remediate any failed assessment. Failure to remediate an assessment on the first attempt results in deliberation by the Subcommittee on Student Promotion as described above.</p> <p>Do all students eventually pass remediation? No, not all. But yes most students are able to remediate failed assessments.</p> <p>If No, what happens to them? Students may repeat an academic year or may be dismissed from the College of Dentistry.</p> <p>How do you remediate students who fail the didactic program? Students meet with component directors to develop a plan for study and or practice to address topics or skills that they have not mastered. After continued study, self-assessment, and practice under the supervision of the component director, the student is reassessed using a different examination for written failures or a repeat performance exam for demonstrated skill deficiencies.</p> <p>How do you remediate students who fail the laboratory simulation program? As described previously – students review their failing performance with supervising faculty. Together, they develop a plan for practice which includes periodic self-assessment and instructor assessment and feedback. When the student appears to be able to consistently demonstrate the assessed skill at an acceptable level, a new assessment is scheduled.</p>
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<p>West Virginia</p>	<p>What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.) Remediation may occur within the course/ during the course. If student fails course, Academic and Professional Standards Committee votes on whether student continues/repeating the course (if is an option with scheduling conflicts), or repeats the course/repeats the year, or is dismissed from the program. Students cannot continue in curriculum if course failed is a course pre-requisite for subsequent courses.</p> <p>Are all students who fail eligible for remediation? All students who struggle in a course are given intensive remediation during the course. If the final grade outcome is a failure, the Academic and Professional Standards Committee determines which of three options stated above is appropriate given the students overall performance.</p> <p>If No, what circumstances would not allow remediation? (See previous response) Professional behavior that violates the code of conduct.</p> <p>Do all students eventually pass remediation? No</p> <p>If No, what happens to them? See above options</p> <p>How do you remediate students who fail the didactic program? Tutoring program</p> <p>How do you remediate students who fail the laboratory simulation program? Faculty may be assigned to provide the struggling student with more intensive supervision during laboratory sessions. Students who fail a PA may be asked to retake the PA but it does not modify their original grade, only shows competency to be able to continue in course.</p>
<p>Western Ontario</p>	<p>What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.)</p> <p>Students who fail a course component (practical or didactic) would write/perform a Supplemental exam in that component (typically a new written final exam or a practical exam similar in nature to the previous final practical). Remediation would occur prior to the new/repeated exam. Currently, students who fail the first practical Supplemental exam may have a second Supplemental exam attempt if the first is unsuccessful, although this is going to be reviewed in the near future. Didactic exams are eligible for only 1 Supplemental attempt.</p> <p>Are all students who fail eligible for remediation?- No</p>

	<p>If No, what circumstances would not allow remediation? Students must carry a 65% overall average to be eligible to sit a Supplemental examination.</p> <p>Do all students eventually pass remediation? -No</p> <p>If No, what happens to them? Depends what year the student is in and the particulars of the situation/result of any University appeal. 2nd & 3rd year students would normally be required to repeat the year (can repeat a year only 1 time- the overall dental program must be completed in a 5 year time-span), while 1st year students are asked to withdraw. Sometimes the University will request students be readmitted based on their appeals or medical/compassionate grounds.</p> <p>How do you remediate students who fail the didactic program? Course Director would meet with the student, review the previous failed exam(s) with them, answer student questions as needed, review material with them as needed.</p> <p>How do you remediate students who fail the laboratory simulation program? Course Director would meet with the student to review the previous failed exam(s) & answer questions. Students have allotted time to practice in the Sim clinic, & would meet with the Instructor/Course Director to show their work & get feedback & review concepts & techniques, & discuss positives & negatives and the overall result. Based on the result, Course Director would then recommend a new prep/restoration for student to perform, & arrange a follow up meeting, repeating as needed until the exam.</p>
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- c. How do clinical procedures get evaluated? (pass/fail, grading scale, etc.)
- i. Do you use a clinical evaluation (grading) system that is integrated with axiUm?
 1. If Yes, please describe.
 2. If No, what system do you use to collect the data?

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>How do clinical procedures get evaluated? (pass/fail, grading scale, etc.) Yes, we have a grading scale from A+ to C-</p> <p>Do you use a clinical evaluation (grading) system that is integrated with axiUm? No it is not but we refer to a grading matrix which is then entered into axiUm</p> <p>If Yes, please describe.</p> <p>If No, what system do you use to collect the data? The grading is described in the syllabus</p>

<p>Indiana</p>	<p>Clinical procedures are supposed to be evaluated on a daily basis to provide feedback to students. They have a self-assessment form to complete first prior to the faculty evaluation. We are currently using a formative feedback system in place of a daily summative grade. The only time students receive a summative grade is on competency procedures. The daily formative feedback has one section that is universal to any procedure in any clinic that is related to professionalism and time management. The other section is written specifically for the type of procedure performed that day (i.e. amalgam, crown prep, etc.). This form is tied to the end of the code completion process in axiUm. However, it is separate from the EHR which is important for legal purposes. This information can then be accessed in Evaluations on their computer at any time.</p>
<p>Michigan</p>	<p>How do clinical procedures get evaluated? (pass/fail, grading scale, etc.) Grade Do you use a clinical evaluation (grading) system that is integrated with axiUm? Yes If Yes, please describe. The clinical and pre-clinical grading scores go from R (ideal), S (clinically acceptable), T (clinically unacceptable requires modification), V (clinically unacceptable requires major modification) If No, what system do you use to collect the data?</p>
<p>Midwestern</p>	<p>How do clinical procedures get evaluated? (pass/fail, grading scale, etc.) Do you use a clinical evaluation (grading) system that is integrated with axiUm? If Yes, please describe. Grading is part of the axium system set up. Grading scale is 1 – 5. Students are asked to self-assess first and subsequently the grade is used as a formative assessment tool</p>
<p>Ohio State</p>	<p>How do clinical procedures get evaluated? (pass/fail, grading scale, etc.) All of the above. Do you use a clinical evaluation (grading) system that is integrated with axiUm? Not for pre-clinical courses. Yes for clinical courses. If Yes, please describe. Depends on which clinical courses. The course director for each course selects the grading criteria and decides how it will be collected in Axium.</p>

<p>Pittsburg</p>	<p>How do clinical procedures get evaluated? (pass/fail, grading scale, etc.) Grading scale.</p> <p>Do you use a clinical evaluation (grading) system that is integrated with axiUm? No</p> <p>If Yes, please describe.</p> <p>If No, what system do you use to collect the data? Our grading for all clinical restorative procedures are completed in Blackboard.</p>
<p>UIC</p>	<p>How do clinical procedures get evaluated? (pass/fail, grading scale, etc.) Clinical procedures are assessed daily by the supervising faculty, and a formative evaluation is provided using a form in axiUm. The intent of the form is to provide feedback, encourage self-evaluation and foster discussion.</p> <p>Do you use a clinical evaluation (grading) system that is integrated with axiUm? No- See above. The daily form in axiUm is not a “grading” system, but provides a formative evaluation.</p> <p>If Yes, please describe.</p> <p>If No, what system do you use to collect the data? For summative grading, faculty complete mid-semester and final semester summative grading, which is collected separately from axiUm by the Managing Partners in the Group Practices.</p>
<p>West Virginia</p>	<p>Do you use a clinical evaluation (grading) system that is integrated with axiUm? Yes</p> <p>If Yes, please describe. Each procedure receives 5 grades: 1) Diagnosis and judgement, 2) Radiographic Interpretation, 3) Technical Skill, 4) Patient Management, 5) Professionalism</p> <p>Each category is scored on a scale of 0-4</p> <p>4.0= Outstanding: No critical errors(ce)</p> <p>3.0= Above Expectations: No ce</p> <p>2.0= Meets Expectations: No ce</p> <p>1.0= Below Expectations: No ce</p> <p>0.0= Unacceptable: +/- ce</p>

	<p>0.5 increments are an option in the scale for each category.</p> <p>A separate comments section exists. Faculty is to write procedure and additional comments in this section. A separate entry is completed for each procedure.</p> <p>At midterm and end of semester, a rating session is held to review the evaluations, and a progress grade is given in each clinical course.</p> <p>Students do not do a written/recorded self-assessment for each procedure. A self-assessment is completed for a clinical competence/PA (performance assessment).</p>
Western Ontario	<p>How do clinical procedures get evaluated? (pass/fail, grading scale, etc.)</p> <p>Grading scale, however the overall cumulative Clinical Experience course is pass/fail.</p> <p>Students are assessed in the clinic according to their operative technical skills and professional performance for every procedure/patient visit (In general: 4=ideal, 3=satisfactory, 2=needs repair; 1=critical error). The cumulative result is then used as a component for determining their overall Clinical Experience result, along with similar results from other disciplines. Students must obtain an overall successful result ("pass", which equates to an average of 2.8/4 in Operative) in each contributing clinical discipline in order to pass the overall Clinical Experience course.</p> <p>Do you use a clinical evaluation (grading) system that is integrated with axiUm? No</p> <p>If Yes, please describe.</p> <p>If No, what system do you use to collect the data?</p> <p>Salud was introduced in September and is starting to be used for this. Prior to it being acquired, paper forms, excel spreadsheets, and an in-house database were used.</p>

- d. Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?
- i. If Yes, how long is the specified time for the following:
 1. Class II amalgam
 2. Class II composite
 3. Full crown preparation
 - ii. If Yes, is there an assessment at the end of the specified time?
 1. If Yes, is this assessment a factor in the project or course grade?

- iii. If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion? No each procedure has a deadline, In the event student has a excused absence, it may be two weeks from the start of the procedure</p> <p>Our grading system has two component: Daily evaluation 2 points maximum and Hand skills 2 maximum points. In the daily evaluation the assessment is on professionalism, infection control, time management, critical thinking and hand skills is depending on if they completed the given exercise in a “acceptable “ fashion. If the students does meet both criteria, earns 4 maximum points for the day, if breaks any evaluation</p>
Indiana	<p>Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion? No, they are not given a finite length of time, but rather are project driven. As such, they do have collective due dates. For example, the students in single tooth direct are not to move on to resin preps and restorations until they have completed all of their amalgams.</p> <p>If Yes, how long is the specified time for the following: Class II amalgam Class II composite Full crown preparation</p> <p>If Yes, is there an assessment at the end of the specified time? There are generally 3 or so practicals throughout the course that assess what the projects have covered. The students are usually given around 3 hours to complete a practical that involves a prep and restoration or a crown prep and provisional.</p> <p>If Yes, is this assessment a factor in the project or course grade? The practical grades comprise the majority of the laboratory grade. A small portion is given to daily grades/projects. The practicals weight the prep heavier than the restoration since a prep cannot be “redone.”</p>
Michigan	<p>Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion?</p> <p>If Yes, how long is the specified time for the following: each</p>

	<p>procedure has 1,5 h (total 3 hours for a prep and restoration). Except for class V restoration that is only 30 min.</p> <p style="text-align: center;">Class II amalgam Class II composite Full crown preparation</p> <p>If Yes, is there an assessment at the end of the specified time? No</p> <p>If Yes, is this assessment a factor in the project or course grade? If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic?</p>
Midwestern	<p>Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion? No, not by single procedure.</p>
Ohio State	<p>Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion? Yes</p> <p>If Yes, how long is the specified time for the following:</p> <p>Class II amalgam 1 hour, restoration only; 2 hours preparation and restoration.</p> <p>Class II composite Same</p> <p>Full crown preparation 1.5 hours.</p> <p>If Yes, is there an assessment at the end of the specified time? Not sure. If Yes, is this assessment a factor in the project or course grade? If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic? At a time specified by the course director. Students may set up before start time.</p>
Pittsburg	<p>Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion? Not at this time. However, I plan on changing this next year in the operative pre-clinical courses.</p>

	<p>If Yes, how long is the specified time for the following:</p> <p>Class II amalgam: Unsure at this time.</p> <p>Class II composite: Unsure at this time. Full crown preparation: There are no plans for time limits at this time.</p> <p>If Yes, is there an assessment at the end of the specified time? I may include a self-assessment grade sheet.</p> <p>If Yes, is this assessment a factor in the project or course grade? No</p>
<p>UIC</p>	<p>Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion? Yes</p> <p>If Yes, how long is the specified time for the following:</p> <p>Class II amalgam – RDI-Prep and restoration including self assessment-2 hours.</p> <p>Class II composite RDI-Prep and restoration including self assessment-2 hours.</p> <p>Full crown preparation. For 1 crown prep+self-assessment-1.5 hours. For 3-unit bridge prep+self assessment- 3 hours</p> <p>If Yes, is there an assessment at the end of the specified time? Yes, all students complete a self-assessment form that include many different rubrics. If Yes, is this assessment a factor in the project or course grade? Yes every performance exam has a self assessment component that weights differently depending on the level in the curriculum. For examples the first performance exam there is no weight to the product. The grade comes 100% from the self-assessment. If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic? See above-From the very first performance exam until the last clinical performance exam.</p>

West Virginia	<p>Other than performance examinations, are procedures in the pre-clinical simulation laboratory given a finite length of time for completion? Yes</p> <p>If Yes, how long is the specified time for the following: In general, more time is given when a student is beginning. Further in the curriculum, less time is allowed, and students are expected to be able to complete preparation and restoration in the time that would be available to them in the clinic with a patient. Clinic and lab sessions are usually 3 hours.</p> <p>Class II amalgam See prev; Class II composite See prev; Full crown preparation See prev</p> <p>If Yes, is there an assessment at the end of the specified time? Yes, if not a graded PA, then a daily evaluation is completed by a faculty. Students are asked to do self-evaluation before receiving faculty evaluation.</p> <p>If Yes, is this assessment a factor in the project or course grade? Usually not, just record for progress and information on instruction given/ difficulties student may be having. Evals as part of overall grade is up to each course director.</p>
Western Ontario	No

e. How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure?

- i. How is it assessed (manikin vs. live patient)?
- ii. When do these assessments occur?

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure? There is and mini OSCE at the end of each semester and comprehensive OSCE at the end of 1st and 2nd year Sim Clinic</p> <p>How is it assessed (manikin vs. live patient)? manikin</p> <p>When do these assessments occur? End of semester</p>
Indiana	How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken

	<p>the course teaching that procedure? We do not formally assess, but have a required review session that they must attend and satisfactorily complete. We require rubber dam set up and prepping/restoring of a class 3 resin, class 2 amalgam and resin. Moving forward, we plan to have a D3 course added for the first summer session that would review these and more to aid in preparation for the clinic. i. How is it assessed (manikin vs. live patient)? This is completed on sim units in the sim lab ii. When do these assessments occur? Immediately prior to beginning to see patients within the clinic at the start of the D3 summer.</p>
Michigan	<p>Just one (some procedures 2), but there is no other assessment before starting the clinical course. Again, I am working on starting a general assessment in typodonts before initiating the clinical practice.</p>
Midwestern	<p>How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure? Multiple How is it assessed (manikin vs. live patient)? Manikin When do these assessments occur? Every other week on average.</p>
Ohio State	<p>How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure? At least twice but often three times. How is it assessed (manikin vs. live patient)? Both When do these assessments occur? During preclinical course for manikin and after the student has successfully completed a specified number of procedures for the live patient.</p>
Pittsburg	<p>How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure? They are assessed for every procedure performed on both a typodont and a live patient. How is it assessed (manikin vs. live patient)? The rubrics differ for the typodont preclinical course versus the live patient. The rubric for the pre-clinical course follows closely to the CDCA rubric. The rubric for procedures on a live patient are much more generalized. When do these assessments occur? After the procedure is completed. Due to the fact that we do not grade in axiUm, sometimes the grading is not completed by the faculty member until the next working day.</p>

UIC	<p>How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure? How is it assessed (manikin vs. live patient)? Class I and III: Once in a manikin. Class II: twice in a manikin (mandibular/maxillary). Clinical (once in D3 year, Once D4 year)</p>
West Virginia	<p>How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure? Depends on frequency that they are doing the procedure. After the course, when entering clinic, students have opportunity to complete procedures (amalgam and composite) on manikin for credit and receive instruction/feedback/criticism for a pass/fail grade. (Must pass to receive credit)</p> <p style="padding-left: 40px;">For Pros, they are given an OSCE that they must pass to enter clinic. They also take a written gateway exam on clinic procedures/protocol that must be passed to enter clinic. But, currently there is no clinical skills operative exam they must pass to enter clinic.</p> <p style="padding-left: 80px;">How is it assessed (manikin vs. live patient)? Manikin- pass/fail. Patient—axium (see prev response)</p> <p style="padding-left: 80px;">When do these assessments occur? After each procedure</p>
Western Ontario	<p>How many times do you assess your students for a particular operative procedure (i.e., Cl II composite) after they have taken the course teaching that procedure? Variable- procedures are assessed clinically by instructors as a part of patient treatment according to criteria developed by the discipline (see part c above), but not on a formal basis as an isolated entity unto themselves (i.e. not as a practical exam). Treatment and therefore number of procedures is patient based, not procedure based.</p> <p>How is it assessed (manikin vs. live patient)? Live patient (see above)</p> <p>When do these assessments occur? Continuously- at each restorative patient session throughout 3rd & 4th year</p>

- f. Does your school provide mock boards for your students?
 - i. If Yes, how are patients obtained?
 - ii. If Yes, provide details on how mock boards are conducted.

- iii. If Yes, is passing the mock boards a requirement for taking the actual board exam?
- iv. If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards?
- v. If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards?

Buffalo	No response
Case Western	No response
Detroit Mercy	<p>Does your school provide mock boards for your students? Yes</p> <p>If Yes, how are patients obtained? They are responsible to find them</p> <p>If Yes, provide details on how mock boards are conducted. The mocks are conducted following CDCA pattern</p> <p>If Yes, is passing the mock boards a requirement for taking the actual board exam? Yes</p> <p>If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? No</p> <p>If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards? No</p>
Indiana	<p>Does your school provide mock boards for your students? Yes</p> <p>If Yes, how are patients obtained? - not patient based - the procedures are done on dentoforms</p> <p>If Yes, provide details on how mock boards are conducted. The Mock board is conducted much like the actual exam. "Lesions" are sent back to an examining station where they are "approved" - basically looking for unprepared teeth with contacts. Also a document check is done at this point - looking for completed documentation as expected on the day of the exam. The preparation is done in the clinic on dentaforms. The preparation is then graded at the evaluation station with the student present, in order to give them feedback on their performance. The student is then asked how they would do a modification request, and again, the documentation is checked. The student then completes the restoration, which is again brought to the evaluation station for grading with the student present. Questions can be answered during the grading process. All faculty members are calibrated twice before the exam - CFE and Grading Station examiners are separately calibrated.</p> <p>If Yes, is passing the mock boards a requirement for taking the actual board exam? Currently, no, however administration is discussing making passing the exam mandatory before enrolling for the Board.</p>

	<p>If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? Yes</p> <p>If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards?</p> <p>The pass rates are evaluated each year, and the specific failure reasons are identified. We target these areas, and have generated demos, lectures and exercises designed specifically to help with weaknesses identified during the Mock and actual exams.</p>
Michigan	<p>Does your school provide mock boards for your students?</p> <p>If Yes, how are patients obtained? Yes, general pool of patients</p> <p>If Yes, provide details on how mock boards are conducted.</p> <p>Students have 2 hours to finish the procedure</p> <p>If Yes, is passing the mock boards a requirement for taking the actual board exam? No</p> <p>If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? no</p> <p>If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards?</p>
Midwestern	<p>Does your school provide mock boards for your students?</p> <p>If Yes, how are patients obtained? Patient are selected from the list of patients assigned to the students</p> <p>If Yes, provide details on how mock boards are conducted. All Mock Boards are an exact duplicate of the actual exams</p> <p>If Yes, is passing the mock boards a requirement for taking the actual board exam? In clinic it is referred to as COMPETENCY EXAMS. Students are required to successfully pass the competency boards in order to sit for the actual board exam</p> <p>If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? The competency boards contain ALL aspects of the ADEX and the WREB exam. Manikin and patient based exams are mandatory</p> <p>If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards? No study has been conducted</p>
Ohio State	<p>Does your school provide mock boards for your students? Yes.</p> <p>If Yes, how are patients obtained? From the student's practices and from screening events.</p> <p>If Yes, provide details on how mock boards are conducted. As much like the licensing board exams as possible.</p> <p>If Yes, is passing the mock boards a requirement for taking the actual board exam? Yes but extra attempts are given.</p> <p>If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? After failure of the mock board</p>

	<p>yes. If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards? I do not know.</p>
Pittsburg	<p>Does your school provide mock boards for your students? Yes If Yes, how are patients obtained? It is the student's responsibility to obtain their own patients. Patients are usually from their own pool of patients but at times the students share a patient. If Yes, provide details on how mock boards are conducted. Mock boards are conducted in the spring of the students third year of dental school and also in the fall of their fourth year. We have specific days in which the students are to take the boards. There are usually four days blocked off in a module for mock boards. If Yes, is passing the mock boards a requirement for taking the actual board exam? No. However, passing the mock boards is a requirement for passing the restorative course. If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? No If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards? No</p>
UIC	<p>Does your school provide mock boards for your students? If Yes, how are patients obtained? Yes, patients are obtained from UIC electronic records as well as public screenings scheduled during weekends. Selected patients, must become patients of record at UIC College of Dentistry. In case a student does not have a patient, the students can take the exam on a typodont, and then the can retake the exam in our clinics with a patient following CDCA protocol. If Yes, provide details on how mock boards are conducted. Mock Boards closely follow the CDCA protocol. Patients are preselected based on the CDCA criteria by clinical faculty. Timing, schedule, paperwork, grading forms, anonymously grading are identical to the CDCA exam. We do not use electronic device to record grading. It is completed over 3 days due to fit everyone in the clinics. Restorative faculty will grade restorative exam and perio will grade perio component of the exam. If Yes, is passing the mock boards a requirement for taking the actual board exam? No, however it needs to be remediated as it is one component of the DAOB course (6%). The remediation must be completed before the CDCA exam. If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? Only in case the patient does no show, or student is unable to find a case for the mock exam day</p>

	<p>scheduled.</p> <p>If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards? Yes, the results of the study showed there is no correlation between failing/passing mock boards and failing/passing the CDCA exam.</p>
West Virginia	<p>Does your school provide mock boards for your students? Yes</p> <p>If Yes, how are patients obtained? They are completed on a mankin.</p> <p>If Yes, provide details on how mock boards are conducted. Graders are in separate room. Student completes procedure, following protocol just as if it were real patient/ boards day. A runner takes preps/restorations to grading room, where they are graded just like they would be for the board exam.</p> <p>If Yes, is passing the mock boards a requirement for taking the actual board exam? No</p> <p>If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? (See prev. response)</p> <p>If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards? No ?</p>
Western Ontario	<p>Does your school provide mock boards for your students?</p> <p>No- there are no practical based board exams for students from accredited dental schools in Ontario.</p>

X. Administration

- a. Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school.

Buffalo	No response
Case Western	No response
Detroit Mercy	Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school. Faculty practice
Indiana	Full-time faculty members are permitted to allocate up to 20% of their time (one day or two half-days per week) for “professional development” (i.e., clinical practice). They may choose to practice within the school’s faculty practice, or offsite in another private practice setting. If they choose neither option, they are expected to work five full days per week in their academic assignments, unless they have negotiated alternate terms. Instead of private practice, some faculty use their professional development time to work as paid consultants to outside agencies. All time spent in outside activities must be documented and is subject to audit.

Michigan	No response provided
Midwestern	Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school. No
Ohio State	Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school. We are allowed to work in Dental Faculty Practice for 2 half days a week. We are not permitted to work outside of the Dental School.
Pittsburg	Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school. Full time faculty members are given the option of working in the faculty practice. The maximum amount of time allotted is one day per week.
UIC	Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school. UIC offers one full private practice day for full time faculty. It is up to the faculty to choose if they would like to practice in the UIC FDP or in an outside practice.
West Virginia	Does your school have a faculty practice? Yes Offer practice time? Yes Provide details about the options available for the faculty at your school. Each faculty member has a contract outlining amount of time employed in the faculty practice which varies among faculty
Western Ontario	Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school. Yes- there is a small faculty practice area, with talk of expanding & renewing it. Some F/T faculty will have a "practice day" built into their contract- they may rent space in the faculty practice clinic, or they may practice off site

- b.** How does your school allow for mandated accommodations for students with a learning disability?
- i. For examinations and/or practical?
 - ii. How often have you had to deal with this issue?
 - iii. What were the learning disabilities?
 - iv. Please provide your University/School's policy statement?

Buffalo	No response
Case Western	No response
Detroit Mercy	How does your school allow for mandated accommodations for students with a learning disability? For examinations and/or practical? Exams only

How often have you had to deal with this issue? **Every year**
What were the learning disabilities?
Please provide your University/School's policy statement?

ACCOMODATIONS FOR INDIVIDUALS WITH DISABILITIES

Accommodations for Students with Disabilities. The University of Detroit Mercy is committed to assisting students with disabilities to receive reasonable and appropriate learning or other accommodations to ensure their equal access to a full learning experience. This is supported by the Mission of the University and is in compliance with the Americans with Disability Act (ADA) of 1990, as amended in 2008, and Section 504 of the Rehabilitation Act of 1973. All students, including those with disabilities, must be capable of meeting the technical standards and essential functions, and other essential requirements of their programs, with or without accommodations. In order to receive accommodations, students should contact the Disability Support Services (DSS), as soon as possible after being admitted, to learn of the of the necessary steps for requesting accommodations.

Disability Support Services

Disability support services are available to all currently enrolled students who have documented disabilities that substantially limit them in one or more major life activities. Individuals eligible for services may have, but are not limited to, the following types of disabilities: mobility, orthopedic, hearing, visual, learning, psychological and attentional. The Disability Support Services (DSS) Office arranges accommodations, adjustments and special equipment for students with all types of disabilities.

An accommodation plan is always individualized based upon a student's disability and needs, and accommodations must be reasonable and appropriate to meet those needs. An accommodation plan could include one or more of the following:

Extra time for testing

Alternative test site

Note taking

Alternative format textbooks and materials

	<p>Sign language interpreters</p> <p>CART (real time captioning) Services</p> <p>On campus housing related accommodations</p>
Indiana	<p>Students use their academic accommodations for examinations/quizzes. Use of accommodations for practical and or clinical experiences is prohibited because it would substantially alter the curriculum and requirements needed to matriculate through the designated program.</p> <p>Accommodations can include any of the following to name a few:</p> <ol style="list-style-type: none"> 1. The student should be allowed extended time on test 2. The student should have use of a reader during exams 3. The student should be permitted to utilize a note taker for classes. 4. The student should be permitted to audiotape class presentations. 5. The student should be in a quiet room for exams/quizzes. <p>IUSD deals with students requiring accommodations on a continual basis in the dental assisting, dental hygiene, DDS and graduate programs. Currently, the IUSD Office of Diversity, Equity and Inclusion (DEI) works with a total of 14 students who have an identified disability. Typically, we have 2-3 dental students requiring accommodations in each class.</p> <p>Information pertaining to the student's actual disability is kept confidential within the IUPUI Adaptive Educational Services (AES) Office. The AES Office only provides the DEI office with what accommodations we need to provide for a specific student. Please refer to the AES website which lists some of the physical and or cognitive disabilities students may have. https://diversity.iupui.edu/offices/aes/services/index.html</p>
Michigan	No response provided
Midwestern	<p>How does your school allow for mandated accommodations for students with a learning disability?</p> <p>For examinations and/or practical? Extra time/quiet room for examinations only, none for practicals.</p> <p>How often have you had to deal with this issue? Every year.</p>

	<p>What were the learning disabilities? Anxiety, dyslexia.</p> <p>Please provide your University/School's policy statement?</p> <p>Disability services. It is Midwestern University's policy to ensure that no qualified students with disabilities are excluded from participation or subjected to discrimination in any program, activity, or event.</p> <p>Midwestern University is committed to providing reasonable accommodations to students with documented learning, medical, or physical disabilities. Policies and procedures provided in the <i>Student Handbook</i> and on the Student Services Intranet page ensure that students with learning disabilities will not, on the basis of such disability, be denied full and equal access to academic programs, activities, or events, or otherwise be subject to discrimination under programs offered by the University. Students requesting accommodation must meet with the Associate Dean of Students, who serves as the Disability Services Coordinator, and complete an application for accommodation. Students may apply for special accommodations at any time during their academic curriculum.</p>
Ohio State	<p>How does your school allow for mandated accommodations for students with a learning disability?</p> <p>For examinations and/or practical? Examinations only.</p> <p>How often have you had to deal with this issue? Every semester that you are a course director.</p> <p>What were the learning disabilities? Not revealed all the time. Only told what the accommodations are and Disability Services handles all the scheduling details.</p> <p>Please provide your University/School's policy statement?</p> <p>All students with documented disabilities and who need accommodations should schedule an appointment with the course director within the first week of the course. Please see the Accommodations for Students with Disabilities Operating Procedure found on the college intranet for details.</p> <p>Operating Procedure Issued: 10/12/2015 The College of Dentistry is committed to students achieving their academic goals unhindered by documented</p>

	<p>disabilities. Therefore, if a student has a disability it is recommended that the student contact Student Life Disability Services early to request specific assistance so that the required documentation can be reviewed and reasonable accommodations can be provided as soon as possible in order to achieve the greatest benefit to the student.</p> <p>Student Life Disability Services collaborates with and empowers students with disabilities in order to coordinate support services and programs that enable equal access to an education and university life. Disability Services, students with disabilities, and course directors must work together to provide reasonable accommodations based on disability, functional limitations, and a collaborative assessment of needs.</p> <p>Purpose of the Operating Procedure The purpose of this operating procedure is to define how the students, staff, and course directors within the College of Dentistry should access the available services through Student Life Disability Services and to define the process by which students receive the appropriate reasonable accommodations as defined by Disability Services.</p>
<p>Pittsburg</p>	<p>How does your school allow for mandated accommodations for students with a learning disability?</p> <p>For examinations and/or practical? Examinations only</p> <p>How often have you had to deal with this issue? In every class there seems to be at least one student with a learning disability.</p> <p>What were the learning disabilities? We are not privy to that information.</p> <p>Please provide your University/School's policy statement? Every course syllabus includes the following:</p> <p>Academic Accommodation Statement If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services.</p> <p>The University policy is as follows: The purpose of an accommodation is to ensure an equal educational opportunity for qualified individuals with disabilities. Accommodations may include auxiliary aides and services, as well as modifications to</p>

	<p>academic requirements as necessary to minimize the impact of the disability.</p> <p>It is the policy of the University of Pittsburgh to comply with the Americans with Disabilities Act of 1990 (ADA), including changes made by the ADA Amendments Act of 2008, and Section 504 of the Rehabilitation Act of 1973 in the provision of reasonable accommodations for individuals who voluntarily disclose and provide documentation of a disability</p>
UIC	<p>How does your school allow for mandated accommodations for students with a learning disability? For written exams, 1.5 – double the time in a distraction reduced room. For timed bench tests or OSCEs – 15 minutes additional at the end to review any stations they choose.</p> <p>No accommodations for live patient clinical exams or timed performance exams in the preclinical lab.</p> <p>For examinations and/or practical?</p> <p>How often have you had to deal with this issue? About 14 students per year across the curriculum</p> <p>What were the learning disabilities? We usually don't get that information unless it's obvious (like a hearing impairment etc.) or the student shares it with us. They disclose their disabilities to the Disability Resource Center (DRC) and the DRC tells us what accommodations are requested. The DRC verifies the disability with the student's physician and we don't see that paperwork. We do have to approve all letters of accommodation from the DRC though, and sometimes we make changes to what is suggested if it is not "reasonable".</p>
West Virginia	<p>How does your school allow for mandated accommodations for students with a learning disability? Recommendations as mandated by the University are followed- usually are for extra time, sometimes needing a separate room, sometimes a translation/ recording device. Accommodations regarding time permitted are given/met for didactic testing ONLY; are not given for clinical skills tests.</p> <p>For examinations and/or practical? If schedule does not accommodate student to have the extra time following the regular time, the student has to come in earlier. Usually an additional faculty member is required to proctor both student/s</p>

	<p>with accomodation agreements and those that do not.</p> <p>How often have you had to deal with this issue? On a regular basis, usually have at least one in every class.</p> <p>What were the learning disabilities? This information is usually not divulged unless the student chooses to share the disability. Ones shared—ADD/ADHD, vision blurring on words when stressed.</p> <p>Please provide your University/School’s policy statement?</p> <p>Inclusivity Statement</p> <p>The West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect, and inclusion. If you are a person with a disability and anticipate needing any type of accommodation in order to participate in your classes, please advise your instructors and make appropriate arrangements with the Office of Accessibility Services. (https://accessibilityservices.wvu.edu/)</p>
<p>Western Ontario</p>	<p>How does your school allow for mandated accommodations for students with a learning disability? For examinations and/or practical? For written exams, involved student will write in a separate location arranged by Student Accessibility Services, typically with more time allotted and/or breaks. Exam must be delivered to SAS at least several days before. For practical exams, typical accommodation involves additional time and/or having allotted, defined breaks. Involved students perform the practical in the Sim Clinic, usually in conjunction with other students.</p> <p>How often have you had to deal with this issue? Seems to be becoming increasingly prevalent within the last 5 years. Approx. 0-3 students per class of 56.</p> <p>What were the learning disabilities? Unknown-Either our Learner Equity & Wellness department or the University’s Student Accessibility Services department deals with applications and decisions regarding this. The information is considered confidential & we are never officially informed as to the nature of the disability. Unofficially, we suspect anxiety-related issues are the most common reason for accommodations being granted.</p>

	<p>Please provide your University/School's policy statement?</p> <p>For specific reasons, the Learner Equity & Wellness Office can arrange excused absences from mandatory small groups and classes, defer exams, and allow for leaves of absence.</p> <p>The Learner Equity & Wellness Office provides compassionate and confidential counselling for all students and residents of the Schulich School of Medicine & Dentistry. We help accommodate students through health problems, pregnancies and personal crises, providing the flexibility they need to do their best in the program. We help students who may need to restructure their academic responsibilities or transfer in and out of programs due to health reasons, religious practices or personal events. If you have a documented learning disability, mental health issue or physical disability, we will work together with Western University's Services for Students with Disabilities and your health care practitioner.</p> <p>Student Accessibility Services (SAS) plays a central role in Western's efforts to ensure that its academic programs are accessible for all students at the graduate and undergraduate levels. SAS arranges academic accommodation for classes, exams, internships and other course or program activities. SAS also provides digital and Braille textbooks, accessible campus transportation, learning strategy instruction for students with learning disabilities, access to computer labs that are equipped with assistive technology, referrals for assessments and other services, and bursaries for students who meet OSAP's eligibility criteria.</p>
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Regional Meeting Report Form

Region:

Host University, Address, and Dates of the 2018 Regional Meeting:

Host University	Address	Dates of Meeting
University of Detroit Mercy School of Dentistry	2700 Martin Luther King Jr Blvd Detroit, MI 48208	October 11 & 12, 2018

Chairperson and Contact Information for the 2018 Regional Meeting:

Chairperson	University/Address	Phone/email
Michele L. Kirkup	Indiana University School of Dentistry 1121 W. Michigan Street Indianapolis, IN 46202	317-274-5576 mkirkup@iu.edu

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

Contact Person, Host University, and Dates of the 2019 Regional Meeting:

Contact Name Phone/email	Host University/Address	Dates of Meeting
Elisabeta Karl 734-763-3340 ekarlz@umich.edu	University of Michigan School of Dentistry 1011 N University Ave Ann Arbor, MI 48109	October 10 & 11, 2019

Regional Meeting Attendee's Form

Name	University	Phone	email
Michele Kirkup	Indiana University School of Dentistry	317-278-5576	mkirkup@iu.edu
Lisa Willis	Indiana University School of Dentistry	317-278-3612	lhwillis@iu.edu
Kim Diefenderfer	Indiana University School of Dentistry	317-274-3715	kediefer@iu.edu
Brooke Adams	Indiana University School of Dentistry	317-439-2256	bnadams2@iu.edu
Paul Reifeis	Indiana University School of Dentistry	317-278-1858	pereifei@iu.edu
Olga Istyutina	Indiana University School of Dentistry	317-844-0022	visiutsi@iu.edu
Laila Al Dehailan	Indiana University School of Dentistry	317-640-4712	laldehai@iu.edu
Swati Chitre	University of Detroit Mercy School of Dentistry	313-494-6783	chitresd@udmercy.edu
Ron DeAngelis	University of Pittsburgh School of Dental Medicine	412-648-0079	rjd43@pitt.edu
Tammy Chipps	West Virginia University School of Dentistry	304-293-1245	tchipps@hsc.wvu.edu
Valerie Perrine	West Virginia University School of Dentistry	304-216-0152	vperrine@hsc.wvu.edu
D. Stanley Sharples	The Ohio State University College of Dentistry	614-688-5808	sharples.3@osu.edu
M. Teresa Pulido	Midwestern University –	630-515-6315	tpulid@midwestern.edu

	Illinois		
Elisabeta Karl	University of Michigan School of Dentistry	734-763-3340	ekarlz@umich.edu
Adriana Semprum-Clavier	The University of Illinois at Chicago College of Dentistry	312-996-1811	asemprum@uic.edu
Greg Jensen	Western University – Ontario	519-661-2111 ext:88813	gjensen@uwo.ca

Suggested Questions for 2019 National Agenda

What is each school's student attendance policy?

How does each school define caries terminology and how do they provide calibration for clinical faculty for caries diagnosis?

How are school's curriculum changing with regards to the new integrated national board examination preparation?

How do school's bench test for their international dental programs?

How many attempts do students to remediate a course, an exam, a clinical procedure?

What are schools teaching with regards to cusp replacement with resin?

How are school's teaching Class V Glass ionomer use?

How are dental school's teaching the sandwich technique and bulk fill technique (resin fill technique)?

CADCAM curriculum?

Within the preclinical courses, do the faculty have rotations (weekly, by projects,) during the courses, or throughout a semester/term?

Regional Nominee for Presenting at the 2019 CODE Annual Meeting (Please Include Topic)

Name	Topic	Contact Info
Adriana Semprum-Clavier		asemprum@uic.edu

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

Attachments:

Indiana:

**INDIANA UNIVERSITY SCHOOL OF DENTISTRY
OPERATIVE DENTISTRY COURSE INFORMATION**

Course	Hours	Semester	Hours/Week	Required Text	Other Resources
D501/D502 Intro to Patient Care	1.0/1.0 Lecture/Lab	D1 Fall/Spring	1.0 Lecture 2.0 Lab	None	Small Group Learning Live Demo
D520 Caries Management	2.0 Lecture/Lab	D1 Fall	1.0 Lecture One 2hr lab	N.A.	N.A.
D537 Intro to Oper Dentistry	0.5 Lecture/Lab	D1 Fall	1.0 Lecture 3.0 Lab	Sturdevant	Manual, Videos (Self made) Live Demo
D532/D533 Single Tooth Direct Restorations Lecture and Lab	1.5 Lecture 2.0 Lab	D1 Spring	2.0 Lecture 3.0 Lab	Sturdevant	Manual, Videos (Self made) Live Demo
D535/D536 Single Tooth Indirect Restorations Lecture and Lab	1.5 Lecture 2.5 Lab	D1 Spring	3.0 Lecture 3.0 Lab	Sturdevant	Manual, Videos (Self made) Live Demo
D630/D631 Cariology and Oper Dentistry	1.0/1.0 Lecture/Lab	D2 Fall/Spring	1.0 Lecture Two 1 hr lab in first and 1 3hr in second	No	Text assignments (Sturd and Summitt)
D731/D732 Advanced Restorative Dent	1.0/1.0 Lecture	D3 Fall/Spring	1.0 Lecture	No	Text assignments (Sturd and Summitt)
D735/D736 Operative and Cariology Clinic	2.5 Clinic	D3 Fall/Spring	N.A.	N.A.	N.A.
D835/D836 Operative and Cariology Clinic	2.5 Clinic	D4 Fall/Spring	N.A.	N.A.	N.A.

**INDIANA UNIVERSITY SCHOOL OF DENTISTRY
OPERATIVE DENTISTRY COURSE BULLETIN DESCRIPTIONS**

DENT D501 Introduction to Patient Care I (1.0 cr.)

This course provides students with the opportunity to apply, in a clinical care setting, the didactic content they are learning in the first year of the pre-doctoral curriculum. The course consists of face-to-face lectures, laboratory exercises and partnered patient care experiences. Students will gain experience in preparation and disinfection of the dental operator, use of personal protective equipment, patient data collection, use of the electronic health record system, conducting a caries risk assessment, providing effective patient education, and fluoride application. Successful completion of this course is a prerequisite for the second semester Introduction to Patient Care course.

DENT D502 Introduction to Patient Care II (1.0 cr.)

This course is a continuation of Introduction to Patient Care I, with emphasis on application of risk assessment, and preventive therapies in a clinical setting.

DENT D520 Risk Assessment, Prevention, & Early Management of Dental Disease (2.0 cr.)

This course introduces students to the biofilm basis of common oral diseases, including caries and periodontal disease. Emphasis is placed on the assessment and identification of these diseases, and on the prevention and non-surgical therapeutics that are available for their treatment.

DENT D537 Introduction to Operative Dentistry (0.5 cr.)

Introduction to Operative Dentistry- D537 will introduce the student to the art and science of Operative Dentistry which includes an introduction to the discipline, use of hand-pieces and rotary instruments, dental terminology, dental histology as it relates to single tooth direct preparations and restorations, cavity classifications, use of rubber dam and other isolation methods, preventive measures such as fluoride and pit & fissure sealants, and utilization of hand instruments to refine the cavity preparation and place direct restorations. After mastering this information, the student should be able to utilize this knowledge for single tooth direct preparations and restorations. Operative Dentistry has been recognized as the foundation of dentistry and the basis from which most other aspects of dentistry begin. Operative Dentistry involves the diagnosis, treatment, prognosis and prevention of defects of the teeth. Such treatment should result in the restoration or maintenance of proper tooth form, function, and esthetics while maintaining the physiological integrity of the teeth in relationship with the adjacent hard and soft tissue, utilizing the basics acquired in D537- Introduction to Operative Dentistry. The preparation and restoration of a tooth requires the dentist to practice applied human biology and microbiology, use principles of mechanical engineering, possess a high degree of technical skills, and demonstrate artistic ability. The student will utilize the background knowledge obtained in Introduction to Operative Dentistry, Tooth Morphology, Dental Materials, and Gnathology to prepare and restore the diseased or abnormal tooth to proper form and function.

DENT D532 Single Tooth Direct Restorations Lecture (1.5 cr.)

Single Tooth Direct Restorations will introduce the student to the art and science of Operative Dentistry. Operative Dentistry has been recognized as the foundation of dentistry and the basis from which most other aspects of dentistry begin. Operative Dentistry involves the diagnosis, treatment,

prognosis and prevention of defects of the teeth. Such treatment should result in the restoration or maintenance of proper tooth form, function, and esthetics while maintaining the physiological integrity of the teeth in relationship with the adjacent hard and soft tissue. It includes direct patient care through diagnosis and prevention of caries and other dental defects followed by treatment planning of restorative options for these areas. This course will focus on treatment options that include executing various single tooth direct cavity preparations and subsequently restoring them with the appropriate dental restorative materials.

DENT D533 Single Tooth Direct Restorations Lab (2.0 cr.)

The Single Tooth Direct Restorations Lab course is intended to help students develop the manual skills necessary to prepare and restore the diseased or abnormal tooth to proper form and function. The preparation and restoration of a tooth requires the dentist to practice applied human biology and microbiology, use principles of mechanical engineering, possess a high degree of technical skills, and demonstrate artistic ability. Manual skills are a very important component of the proper preparation and restoration of teeth and are the foundation to the practice of dentistry. As such, this lab will require students to execute various single tooth direct preparations and restorations.

DENT D535 Single Tooth Indirect Restorations Lecture (1.5 cr.)

The Single Tooth Indirect Restorations course is a direct continuation of Single Tooth Direct Restorations, and students will be responsible for building upon the information and skills learned in that course. Students will be expected to understand the normal morphologic and physiologic characteristics of the dento-facial complex and the etiology, diagnosis and prevention of dental caries within the context of indirect restoration of single teeth.

DENT D536 Single Tooth Indirect Restorations Lab (2.5 cr.)

The purpose of the Single Tooth Indirect Laboratory is to apply the information acquired in D535 to hand skills developed through tooth preparation and the fabrication of indirect restorations. Students will be expected to become competent in indirect preparations and restorations including inlays, onlays, gold crowns and ceramic crowns. Students will be trained using computer aided design/computer aided manufacturing technology as well as more traditional methods of fabrication.

DENT D630 Clinical Applications of Cariology and Operative Dentistry I (1.0 cr.)

The purpose of the Clinical Applications of Cariology and Operative Dentistry Concepts course is to reinforce and build upon the material introduced in D520 Risk Assessment, Prevention, and Early Management of Dental Disease, D532/D533 Single Tooth Direct Restorations and D535/536 Single Tooth Indirect Restorations courses. Students will be expected to understand the continuum of caries management from detection and diagnosis to surgical intervention, with an emphasis on clinical relevance and application. Course lecture topics will include: caries detection and diagnosis, risk assessment, remineralization, erosion, cavity liners and bases, pulp therapy, secondary caries, ceramic restorations, posterior resin composites, and restoration longevity. Laboratory exercises

include: caries detection, risk assessment, preventive techniques, and anterior direct esthetic restorations.

DENT D 631 Clinical Applications of Cariology and Operative Dentistry II

This course is a continuation of D630 and students will be expected to understand the continuum of caries management from detection and diagnosis to surgical intervention, with an emphasis on clinical relevance and application. Course lecture topics will focus on appropriate selection and use of the variety of restorative modalities available. Laboratory exercises include anterior and posterior direct esthetic restorations.

DENT D731 Advanced Restorative Dentistry I (1.0 cr.)

The purpose of this course is to explore restorative principles in greater depth, review basic principles in light of the third-year students' clinical experiences. It updates information from the restorative literature since their first-year experience. Restorative materials' properties are reviewed in the context of clinical applications. Material choice and handling techniques are taught primarily through case presentations of actual patients. Rationale for material choice and techniques in each case is reviewed in depth and supported with literature when available.

DENT D735 Cariology and Operative Dentistry Clinic I (2.5 cr.)

D735 Cariology and Operative Dentistry Clinic I is the first in a series of four courses that provides students with supervised clinical experiences in Cariology and Operative Dentistry. This course will enable the student, upon graduation, to be competent and proficient in the diagnosis and management of dental caries and other dental conditions requiring non-surgical (preventive) treatment or direct restorative care using dental amalgam and resin composite, which are required experiences for graduation, and are evaluated by the Caries Risk Assessment Competency in the 3rd year, and the Operative Dentistry Clinical Competency exam in the 4th year. Additionally, students may obtain clinical experiences involving glass ionomer, cosmetic resin bonding, sealants, direct and indirect pulp therapy, control of rampant caries, provisional and sedative restorations, repair of castings, and direct gold.

DENT D732 Advanced Restorative Dentistry II (1.0 cr.)

The purpose of this course is to explore restorative principles in greater depth, review basic principles in light of the third-year students' clinical experiences. It updates information from the restorative literature since their first-year experience. Restorative materials' properties are reviewed in the context of clinical applications. Material choice and handling techniques are taught primarily through case presentations of actual patients. Rationale for material choice and techniques in each case is reviewed in depth and supported with literature when available.

DENT D736 Cariology and Operative Dentistry Clinic II (2.5 cr.)

D736 Cariology and Operative Dentistry Clinic II is a continuation of the Fall Semester course and provides students with supervised clinical experiences in Cariology and Operative Dentistry. This course will enable the student, upon graduation, to be competent and proficient in the diagnosis and management of dental caries and other dental conditions requiring non-surgical (preventive)

treatment or direct restorative care using dental amalgam and resin composite, which are required experiences for graduation, and are evaluated by the Caries Risk Assessment Competency in the 3rd year, and the Operative Dentistry Clinical Competency exam in the 4th year. Additionally, students may obtain clinical experiences involving glass ionomer, cosmetic resin bonding, sealants, direct and indirect pulp therapy, control of rampant caries, provisional and sedative restorations, repair of castings, and direct gold.

DENT D835 Cariology and Operative Dentistry Clinic III (2.5 cr.)

In D835 Cariology and Operative Dentistry Clinic III students continue their clinical education in Cariology and Operative Dentistry by treating patients during supervised clinical experiences. This courses will enable the student, upon graduation, to be competent and proficient in the diagnosis and management of dental caries and other dental conditions requiring non-surgical (preventive) treatment or direct restorative care using dental amalgam and resin composite, which are required experiences for graduation, and are evaluated by the Caries Risk Assessment Competency in the 3rd year, and the Operative Dentistry Clinical Competency exam in the 4th year. Additionally, students may obtain clinical experiences involving glass ionomer, cosmetic resin bonding, sealants, direct and indirect pulp therapy, control of rampant caries, provisional and sedative restorations, repair of castings, and direct gold.

DENT D836 Cariology and Operative Dentistry Clinic IV (2.5 cr.)

D836 Cariology and Operative Dentistry Clinic IV is a continuation of D835 Cariology and Operative Dentistry Clinic III and is the final course in the series. Students will continue their clinical education in Cariology and Operative Dentistry by treating patients during supervised clinical experiences. This courses will enable the student, upon graduation, to be competent and proficient in the diagnosis and management of dental caries and other dental conditions requiring non-surgical (preventive) treatment or direct restorative care using dental amalgam and resin composite, which are required experiences for graduation, and are evaluated by the Caries Risk Assessment Competency in the 3rd year, and the Operative Dentistry Clinical Competency exam in the 4th year. Additionally, students may obtain clinical experiences involving glass ionomer, cosmetic resin bonding, sealants, direct and indirect pulp therapy, control of rampant caries, provisional and sedative restorations, repair of castings, and direct gold.

Disabilities Accommodation Procedure

The Americans with Disabilities Act (ADA) of 1990 is the civil rights legislation for persons with disabilities in the U.S. It provides protection from discrimination for individuals on the basis of disability. A “person with a disability” is anyone with a physical or mental impairment that limits one or more major life activities. A person is considered a “person with a disability” if he/she has a disability, has a record of a disability, or is regarded as having a disability.

Procedures for Disclosure

After admission to the program, a student is encouraged to disclose a disability to the Associate Dean for Diversity, Equity and Inclusion and request accommodations. The student

will be asked to provide documentation of the disability so that appropriate accommodations may be considered. Requirements for documentation are described below.

Documentation Requirements for Disabilities

Any student requesting an accommodation must present appropriate documentation from a qualified professional, establishing: (a) that the disability exists, and (b) that the requested accommodation is necessary to provide the student with the opportunity to achieve or participate in the program to the same extent as a similarly-situated person without a disability. The documentation should be provided to IUPUI Adaptive Educational Services within **four weeks** of the initial meeting with the Associate Dean for Diversity, Equity and Inclusion, and the following requirements apply to documentation of disabilities.

Documentation must be provided by a licensed professional who is qualified in the appropriate specialty area and whose primary expertise involves the adult population, and the documentation must establish that the licensed professional's qualifications are in the appropriate specialty area related to the disability.

Documentation must be submitted on letterhead of the professional, be signed by the professional and include **minimum** of the following: (a) the specific diagnosis of the disabling condition; (b) a description of the specific way(s) in which the disability limits the student's functions; (c) recommendations for accommodation, including a statement that the professional is aware that the student's environment is a dental school rather than a graduate school, undergraduate school, or secondary school; and (d) a specific explanation of the manner in which the proposed accommodation responds to the student's limitations.

Handwritten documents will not be accepted.

Documentation of a learning disability must include a description of the diagnostic interview, a history of the student's learning disability and any accommodations provided for it, and a specific diagnosis of a generally recognized learning disability. The cost of providing the necessary documentation will be borne by the student.

Determination of Appropriate Accommodations for Disabilities

Once documentation has been submitted as described above, IUPUI Adaptive Educational Services (AES) will contact the Associate Dean for Diversity, Equity and Inclusion. AES will review the request and documentation, establish whether the applicant has a disability, and make or confirm recommendations for appropriate accommodations to the Associate Dean for Diversity, Equity and Inclusion. The process shall be interactive, involving full input from the applicant, appropriate Indiana University School of Dentistry personnel, AES and other IUPUI and external offices possessing the technical, medical, and administrative expertise as needed to evaluate the request.

Should the accommodations recommend revision of the curriculum or program, the Associate Dean for Diversity, Equity and Inclusion will present the accommodation recommendations to a committee composed of the Associate Dean for Diversity, Equity and Inclusion, legal counsel, faculty representatives, and AES. This Committee may do one of the following: (a) determine that the recommended accommodations fundamentally alter the nature and substance of the curriculum, present an undue hardship for the institution, pose a direct threat to the safety of patients, or compromise the academic integrity of the program, and therefore should be denied; (b) modify the proposed accommodations because unless modified, they fundamentally alter the nature and substance of the curriculum, present an undue hardship for the institution, pose a direct threat to the safety of patients, or compromise

the academic integrity of the program; or (c) approve the accommodations as recommended. The accommodation plan will apply to the student throughout his/her tenure in dental school unless the disability changes. The student and the student's respective program director and/or Office of Academic Affairs will follow the recommended accommodation for written examinations and other testing situations set forth by AES provided that the recommended accommodation does not significantly alter the goals of the educational program or any specific activity in the program.

Indiana University School of Dentistry will provide reasonable accommodations but is not required to make modifications or provide auxiliary aids or services that would fundamentally alter the nature and substance of the curriculum, present an undue hardship for the institution, pose a direct threat to the safety of patients or others, or compromise the academic integrity of the respective program. The student must be able to perform the essential skills of the respective curriculum, with or without accommodation, in order to begin or continue in the program.

There may be components to the curriculum to which accommodations recommended for a disability may not be applied (e.g. small group activities, oral examinations, clinical exams, clinic, etc.). Any fundamental change in time allotted, small group and research activities, and assessment methods associated with these components of the program may adversely affect the role of the activity in the curriculum and the expected standards for performance for a student and graduate. Additionally, changes in timed laboratory examinations or other performance-based demonstrations of competence may not be possible.

Tests or test booklets, instructions and testing procedures will be standardized for all students at IUSD. If a student's learning disability is accommodated and results in non-standardized testing administration or environment, the student's performance will be judged on the performance criteria set for all students within the course or curriculum. Performance standards for all educational activities are regulated by the faculty and apply to all students.

Decisions where a student is denied admission or disenrolled due to undue hardship, safety risk, or significant programmatic changes as a result of an inability to meet these minimum standards for admission or retention will be fully documented. Documents regarding a student's or applicant's disability and requests for accommodation shall be treated in a confidential manner and maintained separately from his or her admissions, academic, or other files. IUSD shall maintain files regarding the decision making process with respect to accommodation requests. Reference: AY2018-2019 IUSD DDS Program Student Handbook

UIC

Academic Accommodations

Polices and Laws

As mandated by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and Section 504 of the Rehabilitation Act of 1973 (Section 504) students with a documented disability must be allowed to receive services to augment their education. This includes classroom and outside services such as social groups, support services, counseling, and even mentoring services.

Section 504 of the Rehabilitation Act of 1973

"No otherwise qualified individual with a disability in the United States . . . shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance"

Section 504 of the Rehabilitation Act of 1973 (Section 504) is a federal law designed to protect the rights of individuals with disabilities in programs and activities that receive Federal financial assistance from the U.S. Department of Education. Recipients of this Federal financial assistance include public school districts, institutions of higher education, and other state and local education agencies.

Section 504 is a civil rights law that prohibits discrimination against individuals with disabilities. Section 504 ensures equal access to qualified individuals that: (1) have a physical or mental impairment that substantially limits one or more major life activities; or (2) have a record of such an impairment; or (3) be regarded as having such an impairment.

Higher educational institutions are required to provide students with appropriate academic adjustments and auxiliary aids and services that are necessary to afford an individual with a disability an equal opportunity to participate in a school's program. Recipients are not required to make adjustments or provide aids or services that would result in a fundamental alteration of a recipient's program or impose an undue burden.

The Americans with Disabilities Act of 1990 (ADA)

The ADA ensures civil rights protections to individuals with disabilities similar to those provided to individuals on the basis of race, color, sex, national origin, age, and religion. The ADA guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications.

The Americans with Disabilities Act Amendments Act of 2008 (ADAAA)

The Amendments Act made changes to the definition of the term “disability” and its interpretations by the court. It served to clarify and broaden coverage of the ADA , focusing on discriminatory practices as opposed to identification standards.

Academic Accommodations

What Are Reasonable Accommodations?

Reasonable accommodations are academic adjustments, reasonable modifications, and auxiliary aids and services. Determinations about requests for accommodations are made in an individualized manner based on the nature of the disability and the academic environment. Reasonable accommodations provide equal access to educational programs and activities, not an unfair advantage.

Appropriate services and accommodations are determined by the DRC on an individualized basis. The students' needs and limitations, documentation, and educational environment are evaluated in making a determination as to appropriate accommodations.

The following is a non-exhaustive list of commonly requested academic and exam accommodations.

Common Academic Accommodations

- Testing accommodations
- Note-taking services
- Materials in e-text and audio format
- Access to adaptive equipment and software
- Interpreter and captioning services
- Assistance in activity relocation
- Priority registration

Common Exam Accommodations

- Extended test taking time (50% additional time is the standard)
- Reduced-distraction test environment (which is different from a private testing room)
- Computer access for essay exams
- Use of a basic calculator for math computation
- Assistive technology such as text-to-speech software or dictation software

Please contact the COD Office of Student and Diversity Affairs if you have further questions about the UIC Disability Resource Center or contact <http://drc.uic.edu/>

CODE Meeting

Venue: New York University School of Dentistry

Date: October 2, 2018

Chair: Dr. James M. Kaim (NYU)

Assistant Chair (Dr. Melissa Ing) recorder of minutes

Schools represented: (14) Boston, Columbia, UConn, Dalhousie, Harvard, Maryland, University of New England, NYU, UPenn, Rutgers, Stonybrook, Temple, Toronto, Tuoro, Tufts. (only Howard was absent)

Sponsors represented: Colgate Palmolive, Columbia Dentiform, Ultradent.

Testing Agencies Represented: CDCA, CRDTS, WREB.

Dr. Kaim welcomed the group and thanked Dr. Ing for her substantial help in putting the program together and her willingness to take the minutes and providing a final report. Dr. Kaim also acknowledged the large turnout this year with a first time school in attendance University of New England in Maine, a number of new representatives from the different schools, and a new testing agency CRDTS.

Dr. Kaim asked Testing Agencies for 2018-2019 updates.

CRDTs representatives said that Minnesota only accepts Canadian OSCE. CRDTs said no changes to their exam for this year but there may be changes for the following year. CRDTs is accepted in 44 states. CRDTS noted that some states accept results from all testing agencies and that candidates need to check with the individual states. CRDTs mentioned that they collaborated with WREB to do an occupational analysis to evaluate any updates for future examinations.

CDCA said licensure has become more complicated in the last 10 years. There are board exams, portfolios, OSCEs, residency options, etc. CDCA said that their exam will be accepted in the near future in California. Since the acceptance in 2019 is not certain their advise is if California is where a 2019 graduate wants to go then do not take CDCA. CDCA is accepted in approximately 43 states. CDCA said there are no changes to this year's exam. Next year there may possibly be a computer portion where an implant simulation examination will be included. CDCA is essentially pass/fail now. CDCA likes the multi-visit PCCIF model and encourages all school to use this format. The PCCIF model is the former "Buffalo" format. There report as stated by Dr. Perkins is; the CDCA (ADEX) exam is accepted in 44 states and DC, Puerto Rico, the Virgin Islands and Jamaica. New York only accepts one year general residency for new applicants, and California (probably by 2020).

WREB agreed with CDCA that testing is becoming more complicated. WREB reviewed the major changes they implemented last year. In particular they reported on the major change in which WREB competency was demonstrated by successfully completing the first required Operative procedure of a Class II. Their statistical analysis comparing results from previous years clearly justified the validity of the change. The new optional Prosthetic section was a success. They use a very similar format to the CDCA examination. There will be no changes for this cycle. WREB stated that the requirements of each state boards and statues determines what procedures a candidate must perform and pass. The option

that WREB certifies a candidate with one Operative procedure still allows a candidate who must take a second procedure as a state requirement to do so.

WREB also announced that their analysis of the results using a plastic tooth for the endo procedures as opposed to natural teeth was a success. The tooth manufactured specifically for WREB allows a candidate to perform Endodontics in a manner that mimics the natural tooth as evaluation of the final completion of the procedure is evaluated using radiographs. WREBs is not anticipating any changes for 2019 exam. WREB reported that they are accepted in approximately 42 states.

The testing agencies suggested that the students be mentored and advised to ensure that they check the websites and manuals as regulations can change prior to an examination.

Dr. Kaim announced that Dr. Bruce Horn from WREBs will come to speak at NYU on Jan 22, 2019 as an orientation to the March Clinical portion of the examination and that other candidates from neighboring schools are welcome to attend.

Dr. Kaim announced that there are some house cleaning topics to be discussed:

- 1) Please ask your schools to pay the \$100 dues.
- 2) Next year: where should the meeting be held? Boston? Stonybrook? Touro? Everyone voted for NYU. Dr. Kaim agreed to chair the meeting again.

Anticipated Dates: Monday and Tuesday Sept 16,17, 2019.

2018 National Agenda Topics:

Please note: questions were generally reported as ranges rather than specifics for each school. Where one or two schools seemed out of the mean than those schools may be listed separately

I. Curriculum

a. Operative Course(s):

- i. How many semesters and in what year(s) is your operative dentistry course taught? This question is difficult to report as schools vary a great deal as some do not use semesters.

WE assumed this meant Didactic hours.

Range of hours First year = 15-37 most around 30 (Harvard does not teach in the first year)

Range of hours second year = 11-64 (with 64 being the highest by far at Toronto)

- ii. How many hours per week are devoted to the operative dentistry course?

Hard to quantify as many schools do not use semesters and the year report above is better

- iii. What is/are the course title(s)?

Here are some of the many titles: Group wanted to know what is the difference and why was this questioned asked? Pre-clinic Comp Care; General Dentistry 1 & 2, Diagnosis & and Treatment of Active Disease, Operative 1 & 2, Comprehensive Pre-Clinical General Dentistry, Restorative 1&2

1. How many credit hours are given for each course?

Credits are awarded by a factor of the hours devoted to courses and perhaps some other formula relative to the entire curriculum. Range was 2-16

2. Please list the course description(s) as seen in your Bulletin.

There are all different depending on what they cover each year. This was not recorded

- iv. What didactic resources does your Operative course(s) utilize?

1. Required textbook(s)? **All schools use textbooks as a resource**

- a. If Yes, which one(s)? **10 Sturdivant 4 Summit some use both**

2. Lab manuals **8 schools have lab manuals**

3. Course packets **7 use course packets**

4. Handouts **Most schools provide some handouts**

5. Live hands-on demonstrations **Most school use Live demonstrations but it varies in the amount and manner. Some use row demonstration each faculty in that row or group does a demonstration. Some do full class video demonstrations.**

6. Self-made videos (private domain) **one school makes videos (Tufts) and Dr.Melissa Ing is the one who does those. She has demonstrated those for us at our meeting.**

- a. If Yes, would you be willing to share? **yes she is willing to share**

7. You Tube videos (public domain) **3 schools incorporate You Tube**

8. Professionally-made videos (purchased for private use) **6 schools purchase the videos that go with the Sturdivant Text Book**

- a. If Yes, how do you like them? Who made the video(s)? **Mixed reviews on the You Tube while approval of Sturdivant videos**

- b. If No, would your school consider purchasing high quality videos? **Schools reported that the purchase of outside videos is strictly dependent on and decision by the Chairperson and/or administration and depends on financial implications.**

- v. What other resources do you provide? (lab manuals, course packets, supplementary reading, etc.). **Many schools either recommend or require specific articles or reports. eg. recent publication in ADA journal on Caries Risk Assessment**

- vi. Other than lecture and practice on plastic teeth in typodonts, do you use additional methods to teach the concepts and psychomotor skills necessary to prepare and restore teeth?

1. If Yes, please describe. **Yes those schools that have Simodont utilize it for additional required training or remediation.**

- vii. Is there any OSCE exam in the operative course in your school? **Columbia was the only school using OSCE for student evaluation although Canada also uses it as their licensing examination uses an OSCE format.**

1. If Yes, please describe. **It is a timed station to station examination. Columbia actually has 50 stations with exhibits or pictures. Questions could include a dental instrument is placed as the exhibit and the candidate either by multiple choice or essay indicates the proper use of the instrument. For example a rectilinear hatchet is placed; the candidate could be asked what is this used for and explain what each number in the instrument formula (10-7-15) means.**

Another exhibit could be a Class II cavity preparation on a typodont that asks. What is the major error from those listed. Major would mean critically deficient. One choice could be none of the above. There are two photos at the end to show the OSCE set up.

b. Operative Faculty:

- i. How many F/T and P/T faculty members are available to teach operative dentistry in the pre-clinical simulation laboratory and didactic courses? **Ratio range 1:6 - 1:14**
- ii. How do you calibrate the F/T and P/T faculty members who teach in the operative pre-clinical simulation laboratory? (formal presentations, photographs, typodonts, etc.)

Faculty calibration takes all forms as listed. Some schools have morning huddles, one school for one course actually requires faculty to cut a preparation during non assigned time. Schools also use on line training.

c. How are patient treatment plans developed? That varies among schools. Most schools utilize select faculty in a group practice. A few use a Diagnosis and Treatment plan area or clinic are but often that is not the final plan. Depending on class size some schools can have one person sign off and approve final treatment plans for all patients in a school or all patients within a group practice.

- i. Who is involved in the process? **Selected faculty and group practice directors**
- ii. How are these patients then assigned to students? **Assignment of students varies among the schools. All schools assign a patient to a student before the treatment plan is finalized. Some schools have patients go directly to a group practice where the group practice director assigns the patients; other schools triage patients after initial diagnosis depending on the needs of student; some schools triage patients according to the need of a particular group practice after which the group practice director assigns the patient; some schools allow students who are in emergency clinic to convert those patient and be placed on their roster; the same protocol for any student assigned to diagnosis clinic.**
- iii. How long does it take for a patient to begin their actual treatment from the time of their initial contact to the school? **We decided that a simple prophylaxis did not count and we were looking at a more definite restorative or periodontal procedure. We also eliminated emergency patients. For new NON emergency patient most schools reported that on the second visit SRP could be started. Usually Periodontal treatment of some kind is required prior to beginning any restorative procedures.**

II. Cariology

- a. Does your school use caries detecting dyes as part of the pre-clinical and/or clinical protocol?
 - i. If No, why not? **8 do not use detecting dyes. Unreliable and often false positives**
 - ii. If Yes, is it mandatory or optional? **All who have it reported Optional**
 - iii. If Yes, do students use them during licensing examinations? **Two schools permit their students to use it. All others instruct the students not to use it. Testing agency permit it but do not allow a red dye to be used.**
 - iv. If Yes, please list the specific product(s), color(s), and manufacturer(s). **Danville Caries Finder/ Sable Seek by Ultradent/ Centric**
- b. Does your school use any caries detection devices as part of the clinical protocol?

Yes schools use transillumination for anterior teeth

- i. If Yes, please list the specific product(s) and manufacturer(s). **Did not record that.**
- ii. If Yes, please provide the clinical protocol. **Transillumination for detection of anterior caries is used as an adjunct to visual and/or radiographic protocols.**

III. Materials and Techniques

a. Isolation:

- i. If a rubber dam is not a feasible option when placing a composite resin restoration, does your school have any specific protocols for other isolation methods?
 - 1. If Yes, please describe. **Schools reported that cotton rolls and/or dri-angle and a dental assistant at minimum is required for Class II although a product known as isolite is used and available in 10 schools.**

b. Adhesives:

- i. How many composite bonding systems do you have in your pre-doctoral clinic? **This was a difficult question to quantify as most schools use more than one system. Some schools reported using as many as 4 different systems depending on pre-clinical versus clinical, the type of restoration, etc. Most agreed that the determination of what product to use is primarily dictated by cost. In the clinic many schools reported the use of an available composite is determined by faculty preference. In addition most of the schools did not use the same brand of adhesive with the corresponding bonding agent. All schools reported that a complete discussion during lecture of the different generations of bonding systems is presented.**

1. List each system by classification, product name, and manufacturer:

- a. 4th generation – Three-step Etch-Rinse
 - i. Etch. Rinse. Prime. Bond.
 - 1. e.g. – Optibond (Kerr)
- b. 5th generation – Two-step Etch-Rinse
 - i. Etch. Rinse. (Prime+Bond).
 - 1. e.g. – Prime & Bond (Dentsply)
- c. 6th generation – Two-step Self-etch
 - i. (Etch+Prime). Bond.
 - 1. e.g. – Clearfil SE (Kuraray)
- d. 7th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 - 1. e.g. – Prompt L Pop (3M ESPE)
- e. 8th generation – One-step Self-etch
 - i. (Etch+Prime+Bond).
 - 1. e.g. – Futura bond DC (VOCO America)

2. Are your students and faculty provided with specific indications and guidelines for their use? **Most school said they did not have a formal written guideline**

- a. If Yes, please provide the indications and guidelines. **Schools reported that they do have some specific does and and don'ts. One school reported that group practice approval is required when a student wants to use composite in a non-conventional situation which usually includes placement without rubber dam**

b.

c. Light Curing

- i. When is light curing taught in the curriculum and how much time is devoted to the topic? **All schools except Harvard(they do not teach Operative year 1) teach light curing. Usually one lecture is devoted to this topic. 4 schools teach it again in year 2**
- ii. Are curing lights provided for the students in the pre-clinical simulation laboratory or are they a required purchase as part of their kit? **7 schools provide the light 7 schools require purchase**
- iii. Are curing lights provided for the students in the pre-doctoral clinics or do they use their own? **All schools provide the lights in the clinic**
- iv. What specific curing light(s) do you have available?
 1. Please list name(s) and manufacturer(s) **The most popular light by far is Valo-Ultradent; others include Planmeca, Smartlight, DC Dental, At some schools the lights are built in to the dental unit.**
- v. What protocols are in place to ensure the proper use of your light curing system(s)? **Instruction and protocol presented and followed in pre-clinic and faculty supervision in the clinics**
- vi. What protocols are in place to ensure the proper maintenance of your light curing system(s)? **One or two school utilize a meter to test the light. Those lights are tested by the faculty at each use. Most schools do not have any formal system.**

IV. Student Assessment

- a. Does your school have applicants to your four-year DDS program participate in bench testing prior to admission? **NO NONE**
 - i. If Yes, describe what is required of the applicant.
- b. What is your department policy for remediation should a student fail a didactic course or a laboratory course? (i.e. remediation of the test or practical, remediation of course, repeat the year, etc.) **Didactic all schools remedial assignment then a retest**

Clinical - additional practice and retest

 - i. Are all students who fail eligible for remediation? **NO**
 1. If No, what circumstances would not allow remediation? **Depends on their overall academic record**
 - ii. Do all students eventually pass remediation? **NO**
 1. If No, what happens to them? **Dropped or depending on situation repeat the year**
 - iii. How do you remediate students who fail the didactic program? **Reading assignments, with and without opportunity to meet with course director or designee, and retest**
 - iv. How do you remediate students who fail the laboratory simulation program? **Required repetition of class room exercises evaluated by faculty and then retest.**
- c. How do clinical procedures get evaluated? (pass/fail, grading scale, etc.) **Two schools provide written feedback for each laboratory session with a grade. Most schools do not record a grade. Extremely poor performance is reported by instructor to course director. Most schools use pass fail system or variation thereof. such as 1,2,3**
 - i. Do you use a clinical evaluation (grading) system that is integrated with axiUm?
 1. If Yes, please describe. **those that record daily performance with a grade. Entries include procedure started, completed and a grade or evaluation recorded.**

- Some schools use a minimum threshold of a particular procedure completed which allows a student to then challenge that procedure on a competency test.**
2. If No, what system do you use to collect the data? **All schools use electronic record keeping for clinical procedures. Most use Axium, one uses Epic one uses Salud. Some schools still use paper recording in pre-clinic.**
- d. Other than performance examinations, are procedures in the **pre-clinical simulation laboratory** given a finite length of time for completion? **Only one school reported using untimed protocol**
- i. If Yes, how long is the specified time for the following:
 1. Class II amalgam **assumes preparation and restoration range varied from 90 minutes to 150 minutes**
 2. Class II composite **same**
 3. Full crown preparation **those schools that teach that in their operative program 90 minutes**
 - ii. If Yes, is there an assessment at the end of the specified time? **We assume the question asks about student self assessment YES most schools after a performance test**
 1. If Yes, is this assessment a factor in the project or course grade? **Varies according to school some yes some no**
 - iii. If Yes, at what point does this time requirement begin? When the student does their first preparations/restorations or closer to entering the clinic? **Nearly all schools when the student first starts pre-clinic although length of time for the same procedure decreases as the student proceeds through the course.**
- e. How many times do you assess your students for a particular operative procedure (i.e., CI II composite) after they have taken the course teaching that procedure? **We assumed that this question was asking once student is out of pre-clinic. So this would be competency tests required in the 3rd and/or 4th year. These could also include specific assessments for both board preparation and non board preparation. We only considered Operative procedures and not prosthetics. Again this was all over the place depending on procedures. All schools except 2 did assessments using patients One school only uses manikins for board preparation because of the difficulty of finding patients. All schools agreed it is increasingly difficult to find enough board patients as well as additional patients for mock boards.**
- i. How is it assessed (manikin vs. live patient)? **Same as any assessment although some schools use the actual board forms.**
 - ii. When do these assessments occur? **Some schools only do final assessments in year 4; other schools assess when student has completed the minimum number of procedures which could be in year 3. All schools that have board preparation test for those procedures in year 4.**
- f. Does your school provide mock boards for your students? **All said yes.**
- i. If Yes, how are patients obtained? **Special screenings, friends and relatives, student patient pool.**
 - ii. If Yes, provide details on how mock boards are conducted. **Again this varies from one school only using manikins, a few schools simulate the exact boards (meaning an entire day which includes perio as well) some schools dividing the two operative procedures into two events.**
 - iii. If Yes, is passing the mock boards a requirement for taking the actual board exam? **Unfortunately only 6 schools reported that they knew for sure and those 6 said yes. One school does offer a manikin retake if necessary because of lack of patient**

availability. One school offers an incentive to take and pass the mock boards by awarding success on the boards toward the total competency requirement for the year.

- iv. If Yes, does your school substitute manikin mock boards in lieu of patient-based mock boards? **See above two schools only does manikin; one school may substitute**
- v. If Yes, has your school done an analysis or study on the effectiveness of conducting mock boards? **NO**

V. Administration

- a. Does your school have a faculty practice? Offer practice time? Provide details about the options available for the faculty at your school. **Some schools yes some no faculty practice. For non-faculty practice schools some is yes some is no. Some state schools do not permit faculty to practice privately.**
- b. How does your school allow for mandated accommodations for students with a learning disability?
 - i. For examinations and/or practical? **Federally mandated no choice. The requirements vary from private testing location, additional time, sometimes even a reader.**
 - ii. How often have you had to deal with this issue? **all schools have dealt with it and/or are dealing with it. Some schools every year.**
 - iii. What were the learning disabilities? **Learning disabilities are by classification and are presented on an official document.**
 - iv. Please provide your University/School's policy statement? **Again this would require 14 different documents. Our group was questioning why was this questions asked? Is there a school that does not have someone in administration that knows what the Federal guidelines/requirements are? These guidelines should be conveyed and followed by all departments at the school. Refer to Legal Federal guidelines.**

Photo's: below courtesy of Dr. Richard Lichtenthal Columbia University
Basic set up for OSCE examination





**2018 Southeast Region VI
Consortium of Operative Dentistry
Educators Meeting**

CODE Regional Questions

ECU

1. Can you list the pre-clinical skills assessment and what remediation protocol/process is in place for students challenging it more than 3 times?
-

AU The D1 and D2 dental students are challenged within preclinical courses with various practicals on manikins and benchtop attempting to develop skills prior to clinical care. In addition, there are several gateway assessments prior to being released to clinical care that must be challenged. Within the courses we have remediation. In pre-clinical, if a student fails a practical or didactic, they are challenged again in one week. If the cumulative semester lab score is failing they are then considered failed. If the cumulative semester didactic score is failing the student can challenge the final exam again. For clinical competency failures they are allowed to re-challenge the competency after a brief period of remediation. D3 Clinical competencies must be passed to move into D4. D4 competencies must be passed to graduate.

ECU After 3 failures the student progress committee will make a decision for remediation or re-tracking the student. The remediation is customized to each student (repetition exercises, 1 on 1 sessions, etc...) and then the student is re-assessed.

MMC A student that is unsuccessful at completing the competency examination the first time must meet with the Course Coordinator for remediation work before attempting the competency examination a second time. If competency is unsuccessful the second time or if the student chooses not to remediate, their course grade is an F and the student must repeat the course at the next opportunity. A student must reach 75% on the competency to pass. If the competency is taken a second time and passed the grade awarded is a 75. In the clinic a student can challenge an FCCE 3 times before remediation is mandated.

MUSC Operative: prep and fill a class II and a class III, Fixed Pros: prep #3 & #5 for PFM Br and #8 for porcelain crown. Rem Pros: prep rest seat and guide plane on two teeth and draw a RPD design. Endo: Prep and fill #8. Remediation is to repeat the failed part. This is an actual course at MUSC and must be passed to graduate.

NOVA IPPAs for operative are part of IRDS course which includes dental anatomy, occlusion IPPAs in addition to operative IPPAs.- Class I and II amalgam preparation and restoration, class III composite preparation and restoration, class IV and Class II composite restoration. The only individual assessment that needs to be remediated if failed is the Class II amalgam preparation, even if the overall grade is passing. If the student fails the Class II amalgam preparation, the first remediation can receive a maximum grade of 75 for that procedure and 70 for the second and last remediation. They cannot challenge the assessment a third time and must remediate the course. If the overall average is failing, the course must be remediated as well.

UAB There are approx. 3 “bridge exams” per semester in D1 PCD that students must pass before they move on to the next module. They have three tries for each. If you pass on the first round you get a 95, second round 85, third round 75. Failure on the second remediation gets you a 50. If you get two 50s you fail the course.

UF We have a total of 14 skill assessment/psychomotor examinations
Dental Anatomy: Central incisor, canine, maxillary molar and mandibular molar
Operative I: Class V preparation and RBC restoration, Class III preparation and RBC restoration, Class I preparation and RBC restoration
Operative II: Class II didactic preparation, Class II amalgam preparation, Class II RBC restoration and Complex restorations.
Operative III: Class IV restoration, Porcelain veneer preparation, Ceramic onlay preparation, and Digital project.

We only provide 1 remediation exam per failed examination, if the students fail the remediation is sent the case to SPEC (Student Progress Evaluation Committee)

UK For Restorative Dentistry I (Operative Course):
Skills Assessments (Practical Examinations) are as follows:

1. Class I Amalgam Preparation (Lower Molar)
2. Class II Amalgam Preparation (Lower Molar)
3. Class II Composite Restoration (Lower Molar)
4. Class III or IV Composite Restoration
5. Class II Composite Restoration (Upper Molar)
6. Non-functional cusp replacement in Composite
7. MOD Amalgam Preparation (Upper Premolar or Molar)

If a skills assessment is failed, then the student must complete a remediation project. The course director will work with the student one on one until the remediation project is acceptable. Upon successful completion of this project, the student can then retake the Practical Examination. The practical retake score will then be averaged with the original practical score. If the student ends up with a failing final grade, retake of the course is mandated.

For Restorative Dentistry II (Crown Course):

Skills Assessments (Practical Examinations) are as follows:

1. Full metal crown preparation of a mandibular molar and its temporization.
2. Monolithic zirconia crown preparation of a maxillary molar and its temporization.

Any student who fails a skills-assessment (practical) must meet with the course director. The concerns with their performance are reviewed. The student is immediately set up with a peer tutor. This is typically an upperclassman who has received an “A” in the course. The student is set up to work with the tutor on a one-on-one basis, for about 2 weeks and is required to inform the course director of their progress. The course director will also meet with the student for one-on-one practice sessions. The student is allowed two failures of a particular practical. The third failure will require retaking the course.

UL Assessments:

#20 MO amalgam prep & #29 MO amalgam restoration
#4 MO resin prep & #13 MO resin restoration
#3 MO/DO Box prep (resin) & #14 MO/DO Box restoration (resin)
#8 ML Prep and Class V prep; #9 DL restoration

Remediation:

Students cannot challenge more than 2, not 3, times.

Remediation policy for preclinical operative:

In the event that a competency examination is failed, the student will have two (2) attempts to successfully complete the exam within the course. The time and place of the first attempt will be determined by the course director but it will occur before the next regularly scheduled competency exam and under testing conditions. If multiple students fail a competency, all will attempt to remediate on the same day and time. The student(s) should make every effort to successfully remediate on the first attempt. If the first attempt is not successful, the student will proceed with the next scheduled competency exam. The second attempt will be scheduled prior to the end of the course and the protocol will be as described. The original grade for the failed exam(s) will be used in calculating the course grade; the remediation does not replace the original grade nor does it enter into the course grade calculation.

If the second attempt is unsuccessful, an F will be recorded for the course. Further remediation, if appropriate, will be determined by the Student Progress and Promotion Committee in collaboration with the course director(s). Significant deficiencies may not be alleviated through remediation and repeating the course or dismissal from the program are considerations. The SPPC will make the ultimate determination. If the course is remediated, the highest grade recorded for the course will be a C.

VCU Pre-clinical skills assessment varies by course. I cannot think of any pre-clinical courses that allow for more than one retake of a practical exam and most only allow retaking one, not all. We do not have any sort of schoolwide "gateway" pre-clinical skills exam before starting in clinic.

UNC 3 Practical exams:

Class II prep and composite restoration on a mandibular premolar

Class II prep and amalgam restoration on maxillary molar

Complex amalgam prep and restoration with replacement of one missing cusp

Students must pass 2 of the 3 practical exams. Our goal is to give specific feedback/training opportunity to the weak students BEFORE they fail the practical. They are only allowed to retake a failed exam once.

2. Is your school teaching CAD/CAM/digital impressions in preclinical operative? What percentage of the curriculum is dedicated to it?

- AU** In the legacy curriculum CAD/CAM Introduction/concepts were presented in D1 second semester Operative. There was no associated lab. In the new curriculum D1 second semester Operative students are presented three successive lectures ranging from introduction to preparation and ending with scanning of the preparations. There are associated labs. New Curriculum D2 second semester students pick up with preparation, scanning and milling
- ECU** Yes. 3x 4hs hands-on labs using the Omnicams. Orthodontics also teach it using the 3Shape system.
- MMC** We are teaching it in our D2 2nd semester Operative Dentistry Class. We are devoting 5 pre-clinic sessions out of 29 sessions to it with simulated patient exercises and class practice.
- MUSC** No, it is taught in Fixed Pros and it is used extensively there. Clinically, our students must first prove they can make a conventional impression but after that, they may use digital impressions freely (and they all do).
- NOVA** We have them do two digital impressions on peg teeth that appear as crown prepped teeth on typodonts. They do not scan any type of preparations in our operative dentistry class yet. We are in the process of updating our curriculum so we have not reached the desired percentages yet but we currently we do around 5% of digital teaching within the D1 year. In the D2 year preclinic courses we also have a CAD/CAM course for a month.
- UAB** We used to teach CEREC 3D, but the school decided to abandon CAD/CAM and moved to Digital impressions. Students get training in Digital impressions in PreClinical Pros
- UF** We are teaching scanning, design and mill restoration s in the preclinic setting. 30-40% of the course is on digital dentistry
- UK** This semester, CAD/CAM technology will be introduced to the second year indirect restorative course. The purpose is to introduce students to the current intraoral scanning system, but the primary purpose is to allow students to use Compare (Planmeca E4D) software to receive feedback on their crown preparation. Currently, there is an hour lecture planned, followed by three hours in lab to evaluate student preparations. The percentage of the course dedicated to it, other than the 4 hours planned, will vary depending on student use of the technology. The scanners will be available during non-class hours to allow feedback.
- UL** No, not in preclinical operative. No crowns are performed in preclinical operative.
- VCU** Not yet. Our school is in the process of developing an Advanced Operative/Restorative course where there will be more CAD/CAM curriculum. Currently CAD/CAM is

utilized in Clinic, but pre-clinically the curriculum for it is found in parts of 2 courses, currently.

UNC At this point, we do not teach digital impressions in D-1 preclinical operative dentistry. We teach D-3 students in Advanced operative dentistry course.

LECOM

1. Where are we in regard to the teaching and use of bulk fill composites for posterior direct restorations from an evidence based perspective?
-

AU Repeated question: Please look at UL answer from Dr. Rueggeberg

ECU They are being used and studies show that they are technique sensitive and success can vary due to operator as well.

MMC We do not teach it.

MUSC -----

NOVA mn

UAB Here at UAB we have not switched to Bulk-fills yet but would like to introduce them in the near future.

UF We teaches didactically and do a demonstration in simlab. It is not implemented in clinics yet.

UK At UK we are not recommending bulk fill composites because there are no long term clinical studies available to validate their efficacy.

UL We do not use this material

VCU In pre-clinical operative the subject is taught in lecture, but not utilized in the pre-clinic laboratory nor pre-doctoral clinics.

UNC Bulkfill composites are taught to the students (1st year dental materials course). They are exposed to them again in their 3rd year (advance operative dentistry course) where they have a hands on workshop on the use of the different bulkfill systems (veneered, complete fill and sonic fill). We have not made the switch from conventional to bulkfill in the student clinics. There is not enough evidence to support this. This may change soon. It will have to start with updating and calibrating the faculty, then introducing it to the clinics.

2. At what extent are restorative departments using digital impressions in the general student clinics? Are these impressions starting to supplant traditional impression material tray impressions?
-

AU Clinically we teach in the senior year. Currently, we are working to introduce digital exercises in the D1 and D2 years

ECU We have recently acquired 24 omnicams to equip our clinics in Greenville and Learning centers across the state. Digital curriculum implementation will start with the class of 2022 on their first semester. Current students in clinic have then exposed to digital impressions but not yet on a consistent basis.

MMC At what extent are restorative departments using digital impressions in the general student clinics? We are using them for crowns, veneers, possible bridges. Are these impressions starting to supplant traditional impression material tray impressions? No.

MUSC -----

NOVA Currently we only have two Cerec Omnicams that are shared by the Predoctoral Clinic, PG Prosth and PG Operative Clinic. Many times we have 6-7 students waiting on the scanner in any given half day. Therefore sometimes the last student or the 2 last students end up taking conventional impression as time passes by waiting on the scanner. Not all clinic teams are the same but in the clinic teams where the team leader is confident in scanning and if we get on queue earlier, I would say we scan 1/3 of cases. Each student needs to scan one case as experience and one as competency so each student is exposed to digital scanning. But no, it has not replaced or supplant conventional impressions yet, which is due to the limitations in the scanners.

UAB I don't see a complete supplantation in the near future considering how reluctant to embrace the technology our faculty has been...

UF Not yet, we still teach conventional, but we have a digital clinic dedicated to use scanners.

UK Currently around 15% of the student cases are completed using digital impressions. There are more cases every week. Yes.

UL We are currently not using digital impressions in our student clinics. The pros clinic has the capability.

VCU We do about 30-40% of all crowns using digital impressions and in house CAD/CAM. We started to do about 10% of FPD using digital impressions and sending the cases out to the outside lab.

UNC In our school, digital impressions are utilized in the DDS4 clinics, with the supervision of group practice directors. Rising DDS4 students receive didactic and clinical training before being allowed to use the technology in the clinical setting.

In our school, the technology complements the traditional impression techniques, which are still taught and very much utilized in clinical scenarios that would be less than ideal for digital impressions.

MMC

1. What have you specifically added or intentionally deleted from your Operative Curriculum over the past several years?
-

AU

Freshmen

1. Copper bands (delete)
2. Compomers (delete)
3. Introduction to Digital Dentistry (Add)
4. Enamel Mircoabrasion (delete)

Sophomore

1. Sandwich technique/treatment of subgingival caries (add)
2. ICDAS and ICCMS training (add)
3. Local anesthesia for operative dentistry/ergonomics (add)
4. Digital Dentistry Wedge (Add)

Junior

1. Esthetics. Resin composites. Diagnosis

ECU We have implemented a more robust cariology curriculum, semi-direct onlays, digital dentistry and cad-cam exercises, advanced management of carious lesions to include latest concepts of caries excavation and SDF. We haven't removed anything per se but perhaps diminished the volume of some subjects.

MMC The most significant change we have made is moving our D2 Operative Dentistry Course back to a full year. We feel that cramming it into a single semester deprived the students from developing the most critical of hand skills necessary for all of clinical dentistry skills.

MUSC Nothing was deleted in the past 12 years. Materials have changed but not procedures taught. The only addition is a third of Operative I (the amalgam course) will be used to teach cariology beginning this year.

NOVA -----

- UAB** Amalgam restorations as a REQUIREMENT has been removed, Operative points or even Prosthodontic credit for Onlays, the use of dentinal pins is de-emphasized.
- UF** Adding digital dentistry and porcelain veneers. We have not deleted anything from the curriculum, it is growing the operative dentistry curriculum.
- UK** We have emphasized less gold as a restorative material and have focused more on tooth colored restorations such as zirconia and lithium disilicate. We have reduced the percentage of time spent on amalgam preparations and restorations.
- UL** D2 Auxiliary Retention Course. Class IV has been removed from D1 and added to D2 Auxiliary Retention Course
- VCU** Updates are made according to evidence-based dentistry, new editions of textbooks, replacement of older dental materials with newer ones, etc.
- UNC** Introduction of basic concepts and initial handpiece experiences in the DDS1 Fall and Additional devoted preclinical time (2 hrs didactic and 9 hours lab per week) in the DDS1 Spring semester. Addition of natural teeth exercises. Selective caries removal exercise. Critical thinking exercises.

2. How much technology has been added into your curriculum and do you have specific requirements?

- AU** This is more in the senior year. E4D. However, we have a new committee, our plan is to start teaching in the freshmen year.
- ECU** We are in the process of adding digital impression and digital wax-up in our Dental Anatomy course that will perpetuate into Operative and Pros. No specific requirements yet but we foresee that happening in the very near future.
- MMC** We have stabilized our teaching of the CAD-CAM systems by hiring a full-time faculty member who can assist in the pre-clinical and clinical teaching and post-graduate teaching programs and is the go-to person. Our Dean for Academic Affairs has been experimenting with 3D eyewear technology and clinical applications
- MUSC** CAD/CAM, digital impressions, RPD design, Radio Surgery units. We have four diode lasers and a Waterlase iPlus laser awaiting training before moving into the clinics.
- NOVA** CAD-CAM

- UAB** Digital Scanners have been introduced and a digital impression is a requirement in Prosthodontics, in Operative it used to be CAD/CAM restorations but the school decided to abandon CAD/CAM...
- UF** Preclinical: Digital project which includes, a prep, scan, design, mill and cement. Also compare software in dental anatomy.
Pre-requisite clinical: A psychomotor project, two assists in the Digital clinic and an online certification.
Clinical: at least 1 CAD/CAM patient experience.
New: digital printing (one case)
- UK** We have added digital scanners and milling machines to our pre-clinical/clinical operations. We have also developed more training videos.
- UL** Preclinical Operative: none
- VCU** No CAD/CAM has been added to operative yet. We do present caries detecting units in the lecture portion of the course, and a clinical study was done on electronic shade selection by Dr. Imbery et al.,. Digital dentistry has been incorporated into the Clinics through the Department of General Practice.
- UNC** DDS1 students now learn with electric handpieces and have much more opportunity to understand optimal preparation, finishing and polishing strategies and instrumentation AS WELL AS have a means to more accurately control RPMs.

3. What repercussions do you have and how do you enforce them in your clinics for clinical competence, preparedness, timeliness, dress, personal hygiene, other?

- AU** We have daily clinic evaluation in AxiUm.
- ECU** Repeated violations lead to violation of professional code of conduct which counts towards their professionalism grade. For clinical competence and preparedness, they are required to go through remediation if consistently failing and not meeting expectations. Also, referral to student progress committee is done which may lead to consequences in grade as well as remediation plan.
- MMC** A student can be dismissed from the clinic and the patient reassigned to another team member to be seen that day. The student can be asked to perform an out of clinic assignment (paper etc.)
- MUSC** Effect on grades to removal from clinic for a period up to for a whole semester. All of this has occurred during my tenure here.
- NOVA** All students are provided with orientations, handbooks, course syllabi, and clinic manuals, related to competency assessment, expected behaviors, in preclinic and clinic, daily grades in Professional Attributes, as well as technical procedures. Faculty are

standardized in these items. Repercussions can range from “none”, to a report of student to appear before the Student Progress Committee with potential further sanctions.

- UAB** The daily grade is meant to be used to evaluate those specific aspects. A failing grade is given to reflect failure to comply.
- UF** There is in every competency and daily grade a portion that is professionalism which includes all the categories. If you failed any of the above categories, a professional variance is issue. When the student collects 3 professional variances, he/she is sent to SPEC.
- UK** A daily grade is assigned for competence and preparedness. There is a CDS course that grades for timeliness, dress, etc. If there gross negligence observed, the student is dismissed. There is a critical incident form that can be utilized in extreme circumstances. The form is then forwarded automatically to quality assurance administrators.
- UL** Students receive a daily grade for each patient encounter. Students receive a ND (needs development) if not prepared for the experience. Students with recurring clinical deficiencies are seen by the SPPC.
- VCU** Clinic Directors complete Professional Judgment of Competency Forms which contain many of these issues, and also meet with their students. Problems are reported to the Dean of Clinical Education.
- UNC** This depends on the level of the infraction, i.e. whether it is central to or peripheral to agreed on standards of professionalism as well as willingness on the part of the administration to support enforcement.

4. In light of the recent ADA News article (5-21-18) about the new Nurse Practitioner and Dentist Primary Care Model (NPD model) launched by Harvard and Northeastern, what innovative additions or changes has your school made in the role of Dentist involvement in Primary Care approaches?

- AU** None that I am aware of relative to NPD's. We can ask Vitolo generically about this but I assume our answer will be None at this time.
- ECU** None
- MMC** We have conducted with local Pharmacy Schools and Social Workers and Nutritionists and Therapists and Medical Students a combined educational program. Last year this occurred in three 2 hour sessions (2 at David Lipscomb School of Pharmacy and 1 at Meharry Medical College) where the students were given cases to work through as a team from the various disciplines.

MUSC Nothing has occurred yet. We do have faculty involved in inter-disciplinary discussions with Medicine and Pharmacy.

NOVA NSU CDM offers a dual degree DO/DMD program, in its eleventh year.

UAB -----

UF Our treatment plan course is incorporating this year a nurse practitioner, and also, we got a grant to have nurse practitioners in clinic (Starting Spring 2019)

UK We have a new Wellness Center which integrates oral health with overall health. This center provides a dental as well as a medical examination for patients during one appointment. Examinations are performed by dentists/dental students, nurse practitioners, and dietitians. Referrals to physicians are provided when needed.

UL We have had this in the past but no longer participate.

VCU None made or specifically planned at this time.

UNC We have several small IPE projects at the dental school in collaboration with the school of nursing, pharmacy and medicine. There is a university wide initiative to implement more IPE projects in the next year or so. The director for IPE at the dental school is working closely with the Assistant Provost for IPE on project development efforts.

AU

1. Dental Curriculum

Considering the typical lock-step dental curriculum, failing exams can be very detrimental to student progress, often requiring them to repeat a year if the course is only offered once a year.

- a) Do you have true in-course remediation for failed pre-clinical and clinical psychomotor exams for your operative/restorative/prosthetic courses?

AU Within the courses we have remediation. In pre-clinical, if a student fails a practical or didactic, they are challenged again in one week. If the cumulative semester lab score is failing they are then considered failed. If the cumulative semester didactic score is failing the student can challenge the final exam again. For clinical competency failures they are allowed to rechallenge the competency after a brief period of remediation. D3 Clinical competencies must be passed to move into D4. D4 competencies must be passed to graduate.

ECU Considering the typical lock-step dental curriculum, failing exams can be very detrimental to student progress, often requiring them to repeat a year if the course is only offered once a year.

Yes.

MMC Each remediation is customized to the student needs by the course director as soon as a problem arises usually after the first practical or examination.

MUSC Remediation occurs during the class an exam was failed in.

NOVA Each course director makes the determination if their respective course(s) offer a true in-course remediation for failed preclinical and clinical exams.

UAB There are approx. 3 “bridge exams” per semester in D1 PCD that students must pass before they move on to the next module. They have three tries for each. If you pass on the first round you get a 95, second round 85, third round 75. Failure on the second remediation gets you a 50. If you get two 50s you fail the course.

UF Our policy in RDS is the same for all our preclinical or clinical courses. If you failed the course the student can remediate the course (ONE ATTEMPT). If the student failed the remediation it would be sent to SPEC.

UK Yes, we have remediation.

UL Considering the typical lock-step dental curriculum, failing exams can be very detrimental to student progress, often requiring them to repeat a year if the course is only offered once a year.

Do you have true in-course remediation for failed pre-clinical and clinical psychomotor exams for your operative/restorative/prosthodontic courses?

Remediation for preclinical operative: There is true in-course remediation with up to two attempts to achieve success. See complete policy above (ECU #1)

UNC Yes, depending on their individual trend, students receive customized remediation.

- b) Specifically, if a student fails a lab practical or clinical competency, can they retest to make up or compensate for the failing grade or do they just perform some guided practice or review the errors to the satisfaction of the course director without any chance to change the failing grade for these exams?
-

AU Remediation is available and expected prior to re-challenging test and practicals. A grade of 75 is required to receive a passing grade. The Laboratory grade (70%), didactic grade (28%) and quiz grades (2%) are averaged to make the new final course grade. A maximum course grade of "C" (75-81.9%) can be achieved thru remediation/retesting. Not all courses require formal retesting to prove the students understanding of the material. The individual course directors have the authority to remediate students in the best way possible to achieve individual understanding. See above for Clinical Competencies.

ECU -----

MMC There is no retake on quizzes. All quizzes are reviewed in class. They can retest with a maximum grade of 75.

MUSC I can only speak for Operative: a failed test or practical must be repeated after supervised practice. However, the highest score the student can earn is 80%.

NOVA For preclinical courses, please refer to the answer in the above question. IRDS I and II Lab-IPPAs for operative are part of IRDS course which includes dental anatomy, occlusion IPPAs in addition to operative IPPAs.- Class I and II amalgam preparation and restoration, class III composite preparation and restoration, class IV and Class II composite restoration. The only individual assessment that needs to be remediated if failed is the Class II amalgam preparation, even if the overall grade is passing. If the student fails the Class II amalgam preparation, the first remediation can receive a maximum grade of 75 for that procedure and 70 for the second and last remediation. They cannot challenge the assessment a third time and must remediate the course. If the overall average is failing, the course must be remediated as well.

For clinical competency exams, if failed, the student must remediate. In some cases, the student's permission to take the clinical competency exam, and/or a remediation of a clinical competency exam includes the Clinic Team Leader's assessment if the student is ready, and if not ready, will provide guidance and/or guided practice in preparation for these exams.

UAB -----

UF Preclinic: Re-assessment: They have to retake it at the end of the course and dose not change the grade.
Clinic: They need to attempt again, but automatically a letter grade down is granted.

UK *For the Restorative Dentistry I Course (Operative Course):*
If a skills assessment is failed, then the student must complete a remediation project. The course director will work with the student one on one until the remediation project is acceptable. Upon successful completion of this project, the student can then retake the practical examination. The practical retake score will then be averaged with the original practical score. If the student ends up with a failing final grade, retake of the course is mandated.

For the Restorative Dentistry II Course (Crown Course):

In order to continue in the course, the student must retake a failed practical. A second failure of a practical retake will mean a failure of the course.

For RSD 831 (Clinical Course – 3rd Year) - They student can re-test. The grade given on the retake for a particular assessment will be the average of both assessment scores (the original and the retake).

UL Each failing student receives a specific remediation on the nature of the failure.
Preclinical Operative: See above policy. The failing grade does not change. The original grade for the failed exam(s) will be used in calculating the course grade; the remediation does not replace the original grade nor does it enter into the course grade calculation.

VCU For the pre-clinical operative laboratory course, we allow one –retake of one of the laboratory practicals. Thus, a student has time to practice and improve on a practical they may have failed, or, on which they just want to do better. Tutoring outside of class is also offered for students struggling in the course. For operative clinical competencies: (Please see the answer to VCU’s 1st question.)

UNC Students receive what they earn at the appointed practical time. If they fail the practical, they know that they are at risk of failing the course and having to repeat the year (students must pass 2 of the 3 practicals). They have no opportunity to earn a different grade. Our goal is to give specific feedback/training opportunity to the weak students BEFORE they fail the practical. The student's personal self-assessment on daily projects, supported by honest faculty assessment, should help inform their own need for additional study/practice. This is why we do not grade the daily projects.... honesty (based on defined criteria with defined levels of performance on each domain of the procedure) remains the best policy.

- c) Please describe the typical scenario for a student failing a psychomotor exam in a pre-clinical lecture/lab course and a clinical course in a restorative/prosthodontics discipline at your school.

AU We grade utilizing rubrics. The grading faculty is normalized prior to bulk grading and subsequent extreme scores are relooked at to ensure our normalization carried thru the grading process. Students lose maximum points on “critical errors” but often can fail

by having multiple minor errors. Critical errors are usually easy to communicate to the student, those that fail a practical due to multiple minor errors can be more challenging. The rubrics used in grading are the same rubrics the student utilize prior to the practical.

ECU Yes, if student doesn't meet Criteria established, if rubric leads to failure , then remediation plan set up by course director or attending faculty in conjunction with Group leader.

MMC See above.

MUSC Student fails a pre-clinical practical
Faculty provide hands on help/guidance
Lab practice time is made available
Student re-takes the practical (typically within a week)
Highest grade achievable is 80%

Clinical student fails a competency (our competencies are tyodont based, graded pass/fail)
Faculty provides critique
Lab practice time is made available
Student repeats the exam.

NOVA Each course director makes the determination of type of remediation (true in-course, or after course failure) activities that are required. Typically the activities for remediation of a course are more extensive in terms of practice and testing, than those related to failure of a single exam. Those may involve guided practice, or several practice projects to be reviewed before re-testing.

UAB -----

UF There are many critical errors listed, The most popular are: open contact, excess or sub marginations more than 1mm, divergent walls, hyperocclusion, misplaced anatomy.

UK *For Restorative Dentistry I (Pre-clinical Operative Course):* For the lecture component, the student would meet with the course director to review performance and missed information, but the grade would not change (no make-up). A failing final grade in the lecture component will result in remediation (course director discretion) or retake of the course. For the lab component, the student would perform a remediation project and then retake the failed practical examination. The failing grade will then be averaged with the retake grade. A failing final grade in the lab component would result in retake of the course.

For Restorative Dentistry II (Pre-clinical Crown Course):

Pre-clinical lab failure in a course is described above. In a lecture course, students cannot makeup a failed written exam or a quiz, however, they must meet the course director to discuss their performance. Students are given a lot of notice regarding quizzes and the

content as well as for written exams. If a student fails the lecture portion of this particular restorative course, remediation is offered at the discretion of the course director in the form of a comprehensive exam. A peer tutor is provided.

For RSD 831 (Clinical Course – 3rd Year) - The student must successfully pass all components of the Skills Assessment in order to pass the assessment. Either an overall failing grade of 69.9 or less or a grade of 69.9 or less in any component will require a repeat of the Skills Assessment after counseling with the course director; remediation may be indicated before the retake. In case of failure of the retake, the students must remediate the procedure with the course director before facing a third and final trial. The student must pass the 3rd retake examination in order to pass this course.

UL Remediation:
Students cannot challenge more than 2, not 3, times.

Remediation policy for preclinical operative:

In the event that a competency examination is failed, the student will have two (2) attempts to successfully complete the exam within the course. The time and place of the first attempt will be determined by the course director but it will occur before the next regularly scheduled competency exam and under testing conditions. If multiple students fail a competency, all will attempt to remediate on the same day and time. The student(s) should make every effort to successfully remediate on the first attempt. If the first attempt is not successful, the student will proceed with the next scheduled competency exam. The second attempt will be scheduled prior to the end of the course and the protocol will be as described. The original grade for the failed exam(s) will be used in calculating the course grade; the remediation does not replace the original grade nor does it enter into the course grade calculation.

If the second attempt is unsuccessful, an F will be recorded for the course. Further remediation, if appropriate, will be determined by the Student Progress and Promotion Committee in collaboration with the course director(s). Significant deficiencies may not be alleviated through remediation and repeating the course or dismissal from the program are considerations. The SPPC will make the ultimate determination. If the course is remediated, the highest grade recorded for the course will be a C.

VCU If the student's course average or daily performance in pre-clinical operative dentistry is such that the student is struggling, the Course Director will meet with the student, a tutor will be offered (and assigned if the student accepts), and the student will work with the tutor outside of course time. Additionally, a re-take exam for one of the practicals (see answer above) is offered to all students toward the end of the course.

For a student failing a psychomotor exam in a pre-clinical fixed prosthodontics laboratory course lecture/lab course, the student is placed into an "in-course" tutoring program, works with a tutor outside of course time, with the expectation of improving his or her performance on the next exam. If at the end of the course the individual exam grades yield an overall failing course average, then the student's overall school performance is

assessed by the Academic Progress Committee and a remediation plan is designed that may include retaking the course.

For failed fixed clinical competencies: If a student fails a competency he or she can retake the exam. If a second failure occurs, the student must complete a remediation assignment. The remediation assignment is determined by the course director.

UNC Students have a mock practical one lab period before the real practical to review all steps and allotted time (which is the same as every project period (i.e. 2.5 hours max). The practicals are blindly graded (one faculty member grades 1-2 domains of the procedure for every student e.g. Faculty #1 evals prep axis and pulpal depth, Faculty #2 evals prep width and primary retention, Faculty #3 evals mesial and distal extension, etc. The course director then assembles the individual domain evaluations to develop overall grade for the students efforts and notifies the students. The director meets with any student who wishes clarification including those who did not achieve clinically acceptable levels of performance and recommends specific strategies to rectify the lack of understanding or ability. The students continue to apply lessons learned from the first practical as they accomplish additional daily projects and subsequent practicals.

d) Also, can students make-up failed quizzes or written exams in any courses and how will that affect their grade, if at all?

AU Students may retake periodic test and exams. They are given a week to remediate prior to challenging the test again. A maximum course grade of “C” (75-81.9%) can be achieved thru remediation/retesting.

ECU Yes, after successful completion plan set up by course director. If it leads to pass, then reduced points for the exams.

MMC Quizzes cannot be redone. Exams can be remediated.

MUSC No, written quizzes and exams cannot be made up.

NOVA The CDM policy does not allow for failed or missed make up quizzes. The policy does not typically allow for failed make up exams. The policy does allow for and require missed exams due absence (excused absence).

UAB -----

UF We do not offer make up quizzes, and if they missed an exam with an invalid reason the higher grade attainable is 85% (oral or essay examination)

UK It is at discretion of the course director for most courses.

For Restorative Dentistry I: The student cannot make-up failed quizzes or exams. If the student fails the entire course, remediation can occur in the summer if the course director approves. If not approved, the course must be re-taken.

UL Preclinical Operative: Failed exams cannot be remediated.

VCU To my knowledge, we do not do this at all.

UNC Students receive the points they earn. If they, by the end of the course (which utilizes cumulative didactic and practical examination processes), do not earn 70 percent of the points available from all their various efforts, then they must retake the whole course. Our examination process includes 3 didactic exams, 3 practical examinations and 10 quizzes. The final written exam covers the whole course and the final practical requires skills developed over the whole course.

e) How does your school define “Competency” vs “Remediation” vs
“Proficiency/Gateway” exam?

AU This is our first year that we have a Gateway exam (called comprehensive exam, because accreditation does not let it call otherwise). It is in the sophomore year Part I (motors kill) and Part II (oral). Then Part III is in the junior clinic (motor skills)

ECU Competency / Skills assessment – is a summative (for grade) evaluation of student performance on skills. Failure on any step in the rubric requires a retake with a decrease in possible points.

Remediation – Successfully correcting deficiencies in a student’s learning by means of a focused plan written by course director to help student improve and excel.

Proficiency – defined by the application of skills and knowledge in the delivery of clinical dental care. It is expected that the student will demonstrate good judgment and intellectual curiosity, will operate interdependently with the attending faculty member and related staff and within compliance of the clinic guidelines and protocols.

ECU Competency is the testing of a skill set to meet a minimum level of performance. Remediation is the additional practice and study necessary after a failed competency to achieve a minimum level of performance.

Proficiency is repeated performance at an (clinically or didactically) acceptable level. Gateway in our setting is the accomplished achievement at a minimal level in the basic dental areas to enter the clinic environment or proficiency to take the boards.

MUSC -----

NOVA Competency exam – a clinical assessment that is considered a summative assessment, in which the student should take and pass independently (with only oversight for evaluation by the faculty and to ensure patient well-being, but not for faculty to carry out or interfere, unless it is to benefit patient well-being). This assessment must include evaluation of the student’s professional attributes, knowledge, student self-assessment, in addition to technical skill.

Remediation exam – an examination that follows a process of remedial review/practice with the goal to help students correct deficiencies to competency level in the preclinical and clinical areas. The format is at the discretion of each course director and Clinic Team Leader, as applicable.

“Proficiency/Gateway” exam – an examination that follows completion of a large body of coursework in multiple areas (didactic, sim laboratory, possibly clinical) that often integrates these areas of learning, with a goal to demonstrate that the student is prepared at a readiness level for the next phase of the sequence in the curriculum.

UAB -----

UF Competency: independent examination in which the student demonstrates competent in a skill assessment.
Remediation: Process offered to remediate or fix previous errors.

UK Competency is reserved for clinical exams. However, passing a course and the practical exams demonstrates a basic level of skill permitting the treatment of patients. A student who fails the crown course, for instance, will not be permitted to treat patients with these treatment needs.

UL -----

VCU A Competency is recognition of one’s ability to independently complete a task in the clinical arena, while combining knowledge, skills, and behaviors into practice: one is either competent or not. Remediation is additional learning or practice of a subject or task that is necessary for some level of acceptability to be achieved. The manner in which this can be done can include repeating of previous assignments or performance of new ones. We do not use the word Proficiency. Proficient is the step AFTER competent according to the Dreyfus Model of skill acquisition. We use the term lab exam/skills exam/technical assessment for hands on skills assessment that occur prior to challenging a Competency. A Gateway experience shows that one is ready to challenge a more difficult experience.

UNC Evaluation of Competency in Operative Dentistry @ UNC School of Dentistry

The student must present a properly sequenced and approved treatment plan to the attending faculty member before beginning any operative procedure. This ensures that both the student and the faculty member recognize whether or not the proposed procedure is in keeping with the treatment plan. Any appropriate changes should be noted. The periodontal status for the area should be evaluated and any appropriate modifications noted.

A. GUIDELINES AND BENCHMARKS

The School of Dentistry is committed to providing comprehensive patient care in the student clinics. The assignment of patients is designed to give each student an appropriate range of experience, and each student is expected to complete the patients assigned. If the student does not have the expected departmental clinical experiences within his/her family of assigned patients, it is the student's responsibility to make the Department and Group Practice Directors aware of the problem as soon as it becomes known and to communicate with the Patient Care Coordinators in Clinical Affairs to procure additional patient assignments.

To be eligible for graduation, students must achieve a desired level of competency in each clinical discipline. For this purpose, the Department of Operative Dentistry has established a minimal clinical experience level that each student must fulfill to demonstrate competency in the discipline. The student should make every effort possible to complete a variety of Operative Dentistry procedures. The clinical benchmarks should not be viewed as the "ceiling" but rather as the "floor." Even when the basic benchmarks have been achieved, the student should continue to provide the necessary Operative Dentistry care to his/her patients.

B. CLINICAL EVALUATION PROCESS

The purpose of clinical instruction in Operative Dentistry is to provide the student an opportunity to develop his/her technical skills in a controlled, practical environment. Such an environment permits the student, with the guidance of the faculty, to learn to recognize and correct his/her deficiencies, and to gain the proficiency needed for independent practice. Open communication between student and faculty is essential if optimal benefit is to be obtained from the limited time available, particularly during the initial stages of the student's clinical experiences. As the student gains more clinical experience, less communication may occur so that the student's clinical judgment will further develop and the faculty can evaluate that development.

Clinical evaluation in Operative Dentistry is based on a combination of daily grades, Operative points, and clinical independent assessment assessments; combined, these assessments are utilized to evaluate students' clinical knowledge, skills, performance and progress in Operative Dentistry. These assessment systems are described in detail later in this manual, but here is a brief summary:

* 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 clinical Independent Assessments before they can advance to DDS4. These assessments 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.

In addition to the above, completion of Operative Dentistry also requires meeting the criteria for a minimum GPA1 of 2.0, and not exceeding a maximum number of failing procedures. All are explained in this manual.

C. POINTS SYSTEM

Both the complexity (weight) of the procedure and the performance of the student (grade) determine point designations.

Weights are based on the number of surfaces involved for a given restoration. For a complete list, see Appendix 1. Examples:

Procedure (example) Weight

1-surface amalgam or composite 1

2-surface amalgam or composite 2

3-surface amalgam or composite

Grade Value: A=4, B=3, C=2 and F=0

The total number of points you will receive for a given clinical procedure is calculated by the following formula:

Points = weight x value

Based on the above, here is an example of a points calculation for a clinical procedure:

* MOD amalgam receives a grade of B

* MOD (3 surfaces) has a weight of 3

* A "B" has a value of 3

* Points for the procedure: $3 \times 3 = 9$

Points accumulated from miscellaneous procedures (e.g. foundations and pit and fissure sealants) will count towards the total, but are graded as Pass/Fail only and therefore are not counted when determining GPA.

For the purposes of the points system, the following criteria will be used by students and faculty to designate what constitutes a surface:

* Surface designations follow ADA-CDT guidelines (Codes on Dental Procedures and Nomenclatures).²

* When a restoration extends beyond a line angle, both surfaces that form said line angle will count as surfaces of the restoration.

* If a restoration is placed without interruption on two or more surfaces, the preparation/restoration is designated accordingly as a multi-surface restoration, e.g., MO, MF, DL, MOD, MODF, etc.

* Two isolated restorations placed on the same tooth but on different surfaces are considered two separate one-surface restorations.

* Facial and/or lingual grooves extending from (connected to) an occlusal restoration constitute a surface.

* The entry surface (lingual or facial) for a Class III restoration constitutes a surface.

* Any capped facial or lingual cusp constitutes a surface.

D. CLINICAL INDEPENDENT ASSESSMENT (FORMERLY KNOWN AS COMPETENCY PROCEDURES)

Clinical independent assessments are independent restorative procedures that must be accomplished with no faculty intervention. You must successfully complete two independent assessment procedures:

1. A Class II (MO, DO, or MOD) amalgam preparation and restoration or a Class II (MO, DO, or MOD) composite preparation and restoration, and

2. A Class III composite preparation and restoration. (A Class IV composite preparation and restoration will be accepted in lieu of a Class III composite if there is dentin exposure and the case allows the student to demonstrate preparation and restoration competency.)

These challenge procedures are designed to evaluate your clinical competency, and should be completed after the student has gained some experience with clinical Operative Dentistry. The Group Practice Directors can help determine whether a student is ready to attempt a challenge procedure.

The following are specific rules and guidelines for Operative Dentistry clinical independent assessment procedures and assessment:

* We do not require “board lesions” – rather, any Class II (two- or three-surface) or Class III (or a Class IV with dentin involvement) case that you wish to use as a challenge procedure will be considered. You are allowed to replace existing restorations. The tooth must have a proximal contact to be restored, Class IIs must have opposing occlusion, and Class IVs must have dentin exposure requiring a tooth preparation.

* You must present the case to an attending faculty member – at the beginning of the clinic period, or prior to it – and request that it be approved as an independent assessment procedure.

* You receive twice the number of normal points for an independent assessment procedure that you pass. For example, an MOD amalgam with a grade of “A” usually results in 12 points (number of surfaces = 3 X weigh for the A grade = 4). If a student does the same MOD amalgam as an independent assessment and passes, they will get 24 points.

* You do not receive points for a failing independent assessment procedure, and you must attempt, and successfully complete, another independent assessment procedure later.

* The attending faculty will provide starting, preparation, and restoration checks only. Procedures are to be accomplished independently, without faculty guidance or intervention.

* Assessment instruments (forms): Independent assessment procedures assessments are done online only. Online assessments must be initiated either through the EPR (STAR Portfolio) or through the UNC SOD webpage website (Home Page > Current Students > Clinical Competency Assessment) after faculty approval as an independent assessment procedure and prior to its initiation.

* The faculty must sign and grade the independent assessment procedure assessment evaluation electronically.

* Self-assessment is required for the online independent assessment procedures assessments. Faculty will NOT grade online assessments if the student has not completed their self-assessment and submitted the independent assessment for faculty evaluation.

* Be prepared to discuss “why” you are doing various aspects of the procedure (i.e., be familiar with the concepts of Sturdevant’s Art and Science of Operative Dentistry).

* Case approval and grading can be done by full-time Operative Dentistry faculty, Operative Dentistry super-adjunct faculty, and 3rd year Operative Dentistry graduate students serving as attending faculty. Faculty credentialed for independent assessment evaluation is listed at the drop down menu in the online independent assessment procedure assessment instrument.

In addition to the two clinical independent assessment exercises described above, students in their senior year will be required to participate in and pass a simulation clinical board experience, the mock boards. Just as in the real clinical board, the mock board comprises a restorative (Operative) part and a periodontology part. In the

Operative Dentistry part of the mock board, students will be required to complete one Class II amalgam preparation and restoration or Class II composite preparation and restoration, and one Class III composite preparation and restoration. Specific information about the mock boards is found elsewhere.

2. Dental Admissions

- a) Does your admissions committee require prospective (applicants) dental students or dental residents to provide the school with user id's, login information, or other access to their social media accounts as part of an applicant vetting process? Yes, No, or In the process of adding this to our admissions requirements

AU No, we currently are not.

ECU No

MMC No

MUSC No, we don't do this

NOVA No

UAB -----

UF No

UK No, UKCD does not ask, and has never asked, current or prospective dental students for their social media account information. This is a violation of the guidelines regarding social media set forth in a policy by the University legal counsel. Once students have matriculated, the College's Student Affairs Officer sets up a private Class Facebook page. This individual will send out invitations to members of the incoming class to join the Class Facebook page. Some, but not all, communication with the class from the Office of Student Affairs may occur via this Facebook page.

UL No

VCU No, and no plans to do so in the future.

UNC No

If yes, how long has your school been doing it?

AU	ECU	MMC	MUSC	NOVA	UAB	UK	UL	VCU	UNC
N/A	-----	-----	-----	No	-----	-----	-----	-----	----

If yes, is this required of all applicants, only those invited for an interview, or only those in the final group being considered for admission?

AU	ECU	MMC	MUSC	NOVA	UAB	UK	UL	VCU	UNC
N/A	-----	-----	-----	-----	-----	-----	-----	-----	-----

If yes, who does the social media screening and what are they looking for? Messer

AU	ECU	MMC	MUSC	NOVA	UAB	UK	UL	VCU	UNC
N/A	-----	-----	-----	-----	-----	-----	-----	-----	-----

If yes, how much influence does the findings of a social media screening have on an admissions decision?

AU	ECU	MMC	MUSC	NOVA	UAB	UK	UL	VCU	UNC
N/A	-----	-----	-----	-----	-----	-----	-----	-----	-----

If yes, can you share the release form or other agreement/disclaimer that you use to get permission to screen their social media accounts?

AU	ECU	MMC	MUSC	NOVA	UAB	UK	UL	VCU	UNC
N/A	-----	-----	-----	-----	-----	-----	-----	-----	-----

3. Light-curing

- a) What safety protocols are implemented for patient, assistant, and operator eye protection?

AU Light filters are utilized in all clinics. Hand paddle filters, integrated wand filters and verbal warnings are utilized in clinic. In D1 & D2 preclinical courses light hazard and mitigation is presented. Clinical safety protocols are incorporated in the current edition of the Operative Clinical Handbook which is available to all DCG clinics online.

ECU Eye glasses, eye protectors, Goggles, loupes. Depth of cure, incremental technique, correct positioning of light, adequate distance, light intensity and light quality.

MMC Patients and students and assistants are expected to wear eyewear with side walls. Protective light shields are to be utilized during the curing process. The scientific concepts are taught in D2 and D3 classes.

MUSC Safety lens on the light and dark glasses on patient

NOVA We have the orange goggles. Our curing lights have orange filters. We tell our students and staff to look away when the light curing starts and we get the tactile feel.

UAB The use of a large shield is mandatory practice. Also, a small shield attached the curing unit is used.

UF 2 hours lectures in light curing (1-hour in importance of polymerization and 1-hour in light curing devices), a demonstration with the MARC unit.

UK Dental patients wear standard sunglasses for eye protection from dental treatment spatter and debris. Correct visible light curing (VLC) protocol should not put the patient at risk for blue light irradiation hazard.

UL We have no specific protocol. Just don't look at it.

VCU Students are taught to use light shields attached to the light-curing unit and to instruct the patient not to look at the light.

UNC At UNC, we have purchased blue light blockers for all dental assistants to use when curing. We encourage students to purchase blue light blockers. This will soon be a mandatory practice as it will be incorporated into their student fees.

b) What specific topical aspects about the fundamentals of photo polymerization, as it relates to different clinical scenarios, are taught?

AU First year in the operative class (they receive a 1.5 hr. lecture on the fundamentals of photocuring as well as the proper use of light curing units to clinically expose a wide variety of restorative situations. In their junior year, they have a 1hour lecture on photocuring covering fundamentals of the reactions and the influence of various clinically relevant parameters, as well as differences among light types. They also have a 2-hour, hands-on lab session consisting of 5 different experimental stations, facilitated by clinical faculty: light types and depths of cure; light loss through different thicknesses of composite and tooth structure; Light Output Measurement; Effect of ambient light and soft start curing on composite curing and shrinkage; the effect of tip-to-target distance increase on irradiance at the target using the VALO light used in the clinical areas here at school.

(electromagnetic spectrum of light generated and spectral needs of photoinitiators; myth of the concept of energy reciprocity; important SI unit term definitions (radiant energy, radiant exposure, Radiant Flux (power), incident irradiance, existence irradiance, spectral power), concept of light loss and tip distance, and the effect of possibility of restoration polymerization, and what steps can a clinician take to optimize restoration cure; potential for intrapulpal and gingival iatrogenic damage for curing light exposure).

ECU -----

MMC Patients and students and assistants are expected to wear eyewear with side walls. Protective light shields are to be utilized during the curing process. The scientific concepts are taught in D2 and D3 classes.

MUSC Training for students and assistants

NOVA In the first year, we have one biomaterials lecture on curing lights and photopolymerization and one separate lecture in Operative Dentistry on various curing techniques, fundamentals and clinical tips.

UAB I am in the process of developing a course on the topic. I could use all the help I can get from this question!

UF We follow the 2014 Halifax recommendations. Students are provided in simlab/clinic with protective glasses and shields.

UK New restorative dentistry division chief has brought new lectures on proper VLC protocols and protection, with purchase of Patient-MARC manikin for student training in the process. Items discussed in lectures:
VLC safety; Blue light irradiation hazards; VLC and basic principles of photopolymerization; resin composite photopolymerization requirements; VLC maintenance and role of monitoring.

UL -----

VCU Students are also taught other safety and polymerization issues and how to handle these appropriately, such as how to aim (angulation) the light for the best access, how long to light cure, heat generation and management, soft tissue and pulpal precautions, etc. Our department is interested in obtaining the MARC Patient Simulator to measure light curing technique.

UNC Light curing is taught in the 1st year in the operative course. Students receive a 3 hour lecture on dentin bonding agents and light curing. At UNC we have a patient simulator head (MARC) is used for their training. The 3rd year dental students are then given a 'refresh' lecture and hands-on workshop in the advanced operative course.

For the purpose of standardization and ensuring the use of the most appropriate light curing unit, students are provided with ONE light curing unit (VALO) for both pre-clinical and clinical levels at UNC SOD.

Hand-held radiometers (Bluephase II, Ivoclar) is available to all assistants that are assigned to do a bi-weekly evaluation of irradiance and energy output from each curing light. We will be moving to the MARC CHEC system which is a more sophisticated radiospectrometer that can provide more accurate information.

MUSC

1) Do you have a full semester course in cariology at your school? Who teaches it? What text do you use?

AU We have a full semester course in Cariology that is in the Oral Biology department. It is taught by six different faculty. Textbook: TenCate's Oral Histology. For my lectures, I use Fejerskov and Kidd's Dental Caries as background.

ECU Cariology course runs parallel with operative dentistry course. Operative faculty and pediatric dentistry faculty teach it here at ECU SODM. We use Dental Caries and its clinical management by Edwina Kidd.

MMC No. It is included in the D1, D2, and D3 courses. Sturdevant's Art and Science of Dentistry 6th edition is used.

MUSC No we don't. This year I have carved out a third of Operative I to teach it.
Understanding Dental Caries by Michael Goldberg

NOVA We have super course that is called IRDS which includes Cariology as a module within the first semester of dental school. The lectures are not given on the same time slot each week but rather scattered throughout the semester. We have a total of 12 didactic lectures in cariology. Out of these, 9 lectures are given by a full time faculty member/ Associate Professor Evren Kilinc, DDS, PhD, MPH who has been teaching cariology to the predoc students and post graduate students since 2008. These are the basic concept lectures on dental caries definition and histology, carious process, diagnostic aids, role of saliva, the role of microbiota, the role of nutrition, chemical agents/pharmaceuticals, prescription writing, CAMBRA, preventive dentistry and maintenance program. We also have three guest lecturers that teach silver diamine fluoride(PG Pediatric Dentistry Program Director), ICDAS criteria(Cariology and Restorative Dentistry Department Chair), Caries Risk Assessment (Dean of Informatics).

UAB No, we do not have a full semester course in cariology.
We incorporate various restorative topics in the D1 preclinical courses (cariology, occlusion, oral histology).

We have a lecture series that was organized by the pedo faculty.

We don't require a cariology text, but we recommend
Dental Caries: The Disease and its Clinical Management, 3rd Edition
Ole Fejerskov (Editor), Bente Nyvad (Editor), Edwina Kidd (Editor)
And

We do require Summitt 4th ed text which has much of what a D1 student needs and use this for student reading assignments.

- UF** The course is taught by the Division of Operative Dentistry and includes: lectures, labs and clinic activities. The text used is Dental Caries- The disease and its clinical management from Fejerskov, Nyvad and Kidd.
- UK** The Cariology course was developed 5 years ago, in which there are 15 sessions that provide 1-hour of lecture for each session. It is currently provided for D1 students in the Fall semester by a full-time restorative faculty member who was trained in a graduate operative program.
Textbooks: Dental Caries: The Disease and Its Clinical Management - 3rd edition
Sturdevant's Art & Science Operative Dentistry 7th edition
- UL** -----
- VCU** Yes. Dr. Susie Goolsby. [Dental Caries; The Disease and its Clinical Management.](#)
- UNC** Yes – course starts in the end of the fall semester and ends in the spring. It is taught by the division of Operative Dentistry.

REQUIRED TEXTBOOK

Dental Caries: The Disease and its Clinical Management, 3rd Edition
Ole Fejerskov (Editor), Bente Nyvad (Editor), Edwina Kidd (Editor)
May 2015, ©2015, Wiley-Blackwell
ISBN 978-1-118-93582-8

SUGGESTED TEXTBOOKS:

Essentials of Dental Caries, 4th Edition
Edwina Kidd (Editor), Ole Fejerskov (Editor)
Oxford University Press, 2016
ISBN 978-0-19-105817-2

Caries Management – Science and Clinical Practice. First Edition (2013). Editors
Hendrik Meyer-Lueckel, Sebastian Paris and Kim R. Ekstrand.

Detection, Assessment, Diagnosis and Monitoring of Caries. (2009) Editor Nigel Pitts
(<https://ebookcentral-proquest-com.libproxy.lib.unc.edu/lib/unc/reader.action?docID=475119>)

Current Concepts in Cariology, Dental Clinics of North America, July 2010
Volume 54, Issue 3 (2010), pages 423-586, Edited by Douglas A. Young, Margherita Fontana, Mark S. Wolff (This is available online through UNC Library Journals)

ADDITIONAL READING MATERIALS:

1. <http://ebd.ada.org/ClinicalRecommendations.aspx>

2. http://www.cavityprevention.org/PDP/FDI/US/EN/locale-assets/docs/2016-FDI_CPP_White-Paper_WEB.pdf
3. https://s3.eu-west-2.amazonaws.com/iccms/iccms_v018/story_html5.html

2) In order to identify what is currently being utilized in the Southeastern Region VI schools please fill in the below grid. Please note primary means most often used.

School: AU	
Primary dentin bonding agent	Optibond FL (Kerr)
Secondary dentin bonding agent	Integra Bond (Premier; only with CompCore)
Primary resin composite	Premise (Kerr)
Secondary resin composite	na
Primary base/liner	Vitrabond (3M ESPE)
Secondary base/liner	na
Primary pulp capping agent	Ultra-blend (Ultradent)
Primary Liner under amalgam	none
Primary luting cement	Rely-X Luting Plus (3M ESPE)
Secondary luting cement	Duo-Link (BISCO)
Primary impr material (castings)	
% of students that use or have experience with CAD/CAM clinically	100
Primary Indirect provisional material	Integrity (DentsplySirona)
Secondary Indirect provisional material	Jet Acrylic (Lang)
Post. amalgam/composite ratio	Estimate 1/8
Anterior vs. Posterior restoration ratio	Estimate 1/4
# students in senior class	93?
# students in freshman class	99?
faculty/student ratio in lab	1/10
Faculty/student ration in clinic	1/6

School: ECU	
Primary dentin bonding agent	All Bond 3
Secondary dentin bonding agent	Opti bond
Primary resin composite	Voco Grandioso
Secondary resin composite	Amaris
Primary base/liner	Vitrebond

Secondary base/liner	Calcium hydroxide (is available but seldom used)
Primary pulp capping agent	MTA
Primary Liner under amalgam	
Primary luting cement	RelyX
Secondary luting cement	Variolink
Primary impr material (castings)	Aquasil
% of students that use or have experience with CAD/CAM clinically	35%
Primary Indirect provisional material	Integrity
Secondary Indirect provisional material	JET
Post. amalgam/composite ratio	
Anterior vs. Posterior restoration ratio	
# students in senior class	52
# students in freshman class	52
faculty/student ratio in lab	1/10
Faculty/student ration in clinic	1/6

School: MMC	
Primary dentin bonding agent	Prime and Bond
Secondary dentin bonding agent	
Primary resin composite	Esthet-X HD
Secondary resin composite	
Primary base/liner	Vitrebond
Secondary base/liner	Limelite
Primary pulp capping agent	Dentsply Prisma VLC Dycal
Primary Liner under amalgam	Limelite/Vitrebond
Primary luting cement	GC Fuji II LC
Secondary luting cement	
Primary impr material (castings)	Caulk Aquasil Ultra
% of students that use or have experience with CAD/CAM clinically	5%
Primary Indirect provisional material	JET
Secondary Indirect provisional material	Integrity
Post. amalgam/composite ratio	forthcoming
Anterior vs. Posterior restoration ratio	forthcoming
# students in senior class	55 (4 not enrolled)
# students in freshman class	62
faculty/student ratio in lab	12:1

Faculty/student ration in clinic	10:1 Student Teams 5 D3/5 D4 Students are on rotation and in class which lightens the schedule.
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School: MUSC	
Primary dentin bonding agent	Optibond XTR
Secondary dentin bonding agent	none
Primary resin composite	Kuraray Clearfil Majesty
Secondary resin composite	none
Primary base/liner	Vitrabond
Secondary base/liner	Fuji IX
Primary pulp capping agent	Dycal
Primary Liner under amalgam	Gluma
Primary luting cement	Rely-X Luting
Secondary luting cement	Nexus-3
Primary impr material (castings)	Impregum
% of students that use or have experience with CAD/CAM clinically	100%
Primary Indirect provisional material	Jet acrylic
Secondary Indirect provisional material	Pulpdent Tuf-Temp
Post. amalgam/composite ratio	24% / 76%
Anterior vs. Posterior restoration ratio	43% / 67%
# students in senior class	75
# students in freshman class	76
faculty/student ratio in lab	1:18
Faculty/student ration in clinic	1:6

School: NOVA	
Primary dentin bonding agent	Optibond FL
Secondary dentin bonding agent	
Primary resin composite	Filtek Supreme
Secondary resin composite	
Primary base/liner	Fuji LC
Secondary base/liner	
Primary pulp capping agent	MTA- direct pulp capping (VLC dycal, Fuji liner (indirect pulp cap)
Primary Liner under amalgam	
Primary luting cement	Fuji cement
Secondary luting cement	

Primary impr material (castings)	
% of students that use or have experience with CAD/CAM clinically	100%
Primary Indirect provisional material	Acrylic
Secondary Indirect provisional material	
Post. amalgam/composite ratio	1:100
Anterior vs. Posterior restoration ratio	
# students in senior class	
# students in freshman class	
faculty/student ratio in lab	
Faculty/student ration in clinic	

School: UAB	
Primary dentin bonding agent	Scotch Bond Universal
Secondary dentin bonding agent	ScotchBond Multipurpose
Primary resin composite	Filtek Supreme Ultra
Secondary resin composite	Z-100
Primary base/liner	Fuji Lining LC
Secondary base/liner	
Primary pulp capping agent	Dycal
Primary Liner under amalgam	
Primary luting cement	RelyX luting
Secondary luting cement	RelyX Ultimate
Primary impr material (castings)	Aquasil system
% of students that use or have experience with CAD/CAM clinically	NONE
Primary Indirect provisional material	Acrylic
Secondary Indirect provisional material	Integrity
Post. amalgam/composite ratio	1/9
Anterior vs. Posterior restoration ratio	
# students in senior class	65
# students in freshman class	70
faculty/student ratio in lab	No worse than 1:20. Usually better due to rotations, etc.
Faculty/student ration in clinic	1:8 or 1:6 depending on regular bay vs pros bay. Bays are usually not completely full, so ratio often better

School: UF	
Primary dentin bonding agent	Optibond FL, Kerr
Secondary dentin bonding agent	Clearfil SE Bond2, Kuraray
Primary resin composite	Filtek Supreme Ultra, 3M ESPE
Secondary resin composite	n/a
Primary base/liner	Vitrebond, 3M ESPE
Secondary base/liner	n/a
Primary pulp capping agent	Dycal, Dentsply
Primary Liner under amalgam	Vitrebond, 3M ESPE
Primary luting cement	Fuji Cem, GC
Secondary luting cement	n/a
Primary impr material (castings)	Aquasil, Denstply
% of students that use or have experience with CAD/CAM clinically	100%
Primary Indirect provisional material	Integrity, Dentsply
Secondary Indirect provisional material	SNAP, Parkell
Post. amalgam/composite ratio	1:9
Anterior vs. Posterior restoration ratio	40:60
# students in senior class	90
# students in freshman class	93
faculty/student ratio in lab	1:8-9
Faculty/student ration in clinic	1:6

School: UK	
Primary dentin bonding agent	Optibond FL
Secondary dentin bonding agent	None
Primary resin composite	Filtek Supreme Ultra
Secondary resin composite	Empress Direct (for high demanding esthetics)
Primary base/liner	GC Fuji Liner LC
Secondary base/liner	None
Primary pulp capping agent	Dycal
Primary Liner under amalgam	No liner is placed under amalgam
Primary luting cement	RelyX Unicem 2
Secondary luting cement	Ketac Cement,
Primary impr material (castings)	Extrude
% of students that use or have experience with CAD/CAM clinically	25%

Primary Indirect provisional material	Telio CS CM
Secondary Indirect provisional material	Jet Acrylic
Post. amalgam/composite ratio	1:23
Anterior vs. Posterior restoration ratio	1:1.05
# students in senior class	66
# students in freshman class	65
faculty/student ratio in lab	1/8-10
Faculty/student ration in clinic	New restorative division chief does not base coverage on faculty/student ratio. Faculty staffing is based on procedures taking place and dental student experience. Restorative division chief assesses the clinic floor and determines if either student # or procedure type requires more staffing. If more staffing is needed, he either recruits additional coverage or provides the extra assistance himself.

School: UL	
Primary dentin bonding agent	Ivoclar ExciTE F
Secondary dentin bonding agent	none
Primary resin composite	Ivoclar EvoCeram
Secondary resin composite	none
Primary base/liner	Dycal
Secondary base/liner	3M Vitrabond Plus
Primary pulp capping agent	Dycal
Primary Liner under amalgam	None unless near exposure then Dycal & Vitrabond
Primary luting cement	3M RelyX Luting (RMGI) or RelyX Unicem 2
Secondary luting cement	
Primary impr material (castings)	Affinis, Aquasil, or Impregum
% of students that use or have experience with CAD/CAM clinically	100
Primary Indirect provisional material	Integrity
Secondary Indirect provisional material	Jet
Post. amalgam/composite ratio	35/65
Anterior vs. Posterior restoration ratio	50/50
# students in senior class	119
# students in freshman class	120

faculty/student ratio in lab	1:20
Faculty/student ratio in clinic	1:6-10

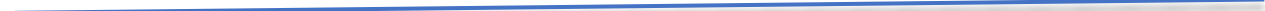
School: VCU	
Primary dentin bonding agent	Optibond Solo Plus
Secondary dentin bonding agent	
Primary resin composite	Z250 Hybrid Composite (and Kerr Revolution for Flowable)
Secondary resin composite	
Primary base/liner	Vitrebond Plus; Theracal LC (if closer to the pulp)
Secondary base/liner	
Primary pulp capping agent	Theracal LC
Primary Liner under amalgam	Optibond Solo Plus
Primary luting cement	GC FujiCEM 2
Secondary luting cement	Ceramir, Panavia SA (for glass fiber posts), Panavia V5 (for resin-bonded FPD), Variolink Esthetic (for CAD/CAM crowns and lithium disilicate)
Primary impr material (castings)	Aquasil; Regisil
% of students that use or have experience with CAD/CAM clinically	Most D4s will have completed at least 1 CAD/CAM restoration by graduation
Primary Indirect provisional material	Integrity
Secondary Indirect provisional material	Alike
Post. amalgam/composite ratio	$845/6864 = 0.1231$ to 1 for 2017-2018 academic year
Anterior vs. Posterior restoration ratio	Anterior to Posterior Restoration Ratio = $4100/7709 = 0.5318$ to 1 for 2017-2018 academic year
# students in senior class	100
# students in freshman class	96
faculty/student ratio in lab	This varies. Sometimes we may have a 1:10 ratio in the pre-clinical operative lab, other times 1:16 when Faculty are attending meetings, etc.
Faculty/student ration in clinic	In pre-doctoral Clinic the ratio can vary from generally 1:8 (sometimes more), or as low as 1:4 if there are cancellations.

School:UNC

Primary dentin bonding agent	Clearfil SE Bond
Secondary dentin bonding agent	Optibond Solo Plus
Primary resin composite	Filtek Supreme Ultra
Secondary resin composite	
Primary base/liner	Vitrebond
Secondary base/liner	
Primary pulp capping agent	Dycal/MTA
Primary Liner under amalgam	Vitrebond
Primary luting cement	Rely X Plus and Rely X Unicem
Secondary luting cement	
Primary impr material (castings)	Aquasil Heavy and light body
% of students that use or have experience with CAD/CAM clinically	40%
Primary Indirect provisional material	PMMA
Secondary Indirect provisional material	
Post. amalgam/composite ratio	Amalgam -30% , Composite – 70 %
Anterior vs. Posterior restoration ratio	
# students in senior class	84
# students in freshman class	83
faculty/student ratio in lab	1:6
Faculty/student ration in clinic	1:5

NSU

1. Do you have an integrated multidisciplinary pre-clinical first year dental course helping to prepare students for comprehensive patient care or are your courses discipline based



AU Our courses are discipline based.

ECU Discipline based but ensuring multi-disciplinary overlap.

MMC -----

MUSC The course is called Early clinics, take impressions on each other, do prophy on each other etc.

NOVA -----

UAB Discipline based

UF Treatment planning course is a multidisciplinary course in the second year.

UK We offer ODM 814. This course prepares the first year student to interact with patients. They learn in class, followed by clinic rotations, the art of collecting patient health/dental history (CC, HPI, PMH, etc).
The students are also required to learn how to perform a proper clinical examination and how to record patient vitals. These skills are obtained by pairing students with classmates for preclinical instructional sessions.

UL Introduction to clinical dentistry course in D-1

VCU Mostly discipline-based, although there are multidisciplinary Clinical Skills course each semester for the first 2 years.

UNC Our courses are currently topic/ discipline based. However, we are undergoing a curriculum revision and are in the process of designing an integrated course.

2. In addition to competency examinations do you have recommended benchmarks / requirements?

AU Our curriculum is discipline/competency based. Students have experiential requirements building up to competency challenges. Completion of the competencies is required for graduation.

ECU Yes, in preclinical and clinical.

MMC -----

MUSC -----

NOVA -----

UAB No but that would be a great discussion with all the schools. Great point.

UF Not yet as CODA required competency assessments

UK We used the CODA requirements to develop our competencies.

UL -----

VCU Yes. We have threshold requirements that must be satisfied before challenging a competency as well as essential experiences that must be satisfied.

UNC Yes, they are discipline specific. In Operative we calculate clinical experience in points.

POINTS SYSTEM

Both the complexity (weight) of the procedure and the performance of the student (grade) determine point designations. Weights are based on the number of surfaces involved for a given restoration. For a complete list, see Appendix 1. Examples:

Procedure (example)	Weight
1-surface amalgam or composite	1
2-surface amalgam or composite	2
3-surface amalgam or composite	3

Grade	Value
A	4
B	3
C	2
F	0

The total number of points you will receive for a given clinical procedure is calculated by the following formula:

Points = weight x value

Based on the above, here is an example of a points calculation for a clinical procedure:

- MOD amalgam receives a grade of B
- MOD (3 surfaces) has a weight of 3
- A “B” has a value of 3
- Points for the procedure: $3 \times 3 = 9$

3. How do you standardize and calibrate faculty including existing and new faculty?

AU Faculty are calibrated by inclusion in the Oper course and/or the D2 Sophomore block labs (4) where we teach this. They are standardized along with the students. Additionally, we have them take the ICDAS online training.

ECU Through Faculty development sessions as well as Itunes U course along with huddles before pre-clinical labs.

MMC -----

MUSC -----

NOVA -----

- UAB** We have started Calibration sessions that are offered periodically. I am proposing an onboarding process that is more ongoing and I think better to start with calibrated new faculty
- UF** Monthly division meetings, calibration sessions, pre-evaluation calibrations and division director meets with courtesy or part time faculty directly
- UK** Faculty lectures are provided on CANVAS describing criteria. Student practical examinations and patient cases are photographed and compiled for use in calibration training. Calibration exercises are performed before faculty grade practical examinations.
- UL** -----
- VCU** In the Department of General Practice, we have mandatory training on restorative topics on the department's Blackboard site.
- UNC** We do not have a formal calibration session. Faculty who teach in pre-clinical courses are assigned to teach in clinic so that the message/instructions are consistent and translate to clinical practice. For the same reason, new faculty are assigned to teach in pre-clinical courses initially prior to teaching in clinic.

1. How did you implement ICDAS/ICCMS clinically?

- AU** Clinically, all lesions are examined and coded and the decision made to treat or not, and how, made in light of that. It is only transcribed to AxiUm as primary or secondary based on the decision to treat surgically or not based on the lesion and the patient risk factors.
- ECU** By teaching extensively preclinically, incorporating in treatment planning course as well as Coding in Axium along with documentation clinically.
- MMC** -----
- MUSC** -----
- NOVA** -----
- UAB** We don't have a specific way to do that. Since we do not have an Operative Dentistry Dept, we rely on General Dentist that do not have a proper grasp of the concepts... This calibration aspect is in my opinion the most difficult...
- UF** We teach in the Cariology course and it is reinforced in the clinic, but it is not implemented as part of the caries risk assessment.

UK This implementation has been as work in progress. A caries management clinical competency has been developed and has been implemented for the D2 clinic in order to emphasize the management of behavioral change and prevention. A new form that can assess a patient's risk behavior for caries has been developed and utilized as a part of a caries risk assessment.

UL -----

VCU No integration of ICDAS in axiUm, and caries management is according to risk assessment (CAMBRA).

UNC Several hands-on sessions with extracted teeth for students during their cariology course.

UF

1. Do you have any CAD/CAM requirements at your school?

AU In senior year (1 competency E4D)

The DCG has created a Digital Dentistry Teaching Wedge committee chartered to address an intentional/standardized wedge of instruction starting with the D1 class and ending in D4. This committee is subordinate to the DCG Curriculum Committee.

ECU Not yet. With the recent acquisition of new equipment, we are planning to implement formal requirements.

MMC No but they can be used to replace requirements for traditional crowns or bridges.

MUSC Yes, every student does at least one. Most do many

NOVA Yes. We have CAD/CAM exercises, projects in the preclinical courses, a separate CAD/CAM course right before they get into the clinic where they are required to submit digital dentistry projects. In the clinic, they have one mandatory experience and one competency on CAD/CAM dentistry.

UAB Not CAD/CAM but digital impressions. The students are required to have a scanned case and delivered to get the credit.

UF -----

UK UKCD is one of the schools supported by the American Academy of Prosthodontics to integrate digital technology in the undergraduate curriculum. In the preclinical curriculum, several courses include CAD/CAM scanning practicum exercises to familiarize undergraduate students with digital technology. Same day chairside

scanning and milling has been introduced clinically with one-on-one coaching from faculty.

UL No

VCU We currently do not require D4s to graduate with any CAD/CAM crown. However, we have a crown competency that can be done either through conventional technique or CAD/CAM. Last year, >200 crowns were done in the DDS clinic (class of ~100), and about 80% of D4 class had done at least one CAD/CAM crown.

UNC Not currently but planning on implementing soon.

2. How are complex esthetic cases handled with your students?

AU Well, it really depends on the complexity of the case. If we agree to treat it here in Comp Care, then we have the student identify two faculty that they will try to work with pretty exclusively whenever possible for continuity. If it is more complex but is a good student, then we often will refer to Grad Prosth and the Esthetic program for the student (under the supervision of Dr. Chiche) to work on the case along with an assigned grad prosth resident. Lastly, if very complex and the student does not qualify for working in the esthetic center, then the patient would just need to be referred to be treated by the grad prosth clinic.

ECU Complex cases are usually schedule 1-on-1 with specific faculty for quality control, learning experience and continuity of the case.

MMC Students are limited to a maximum of 4 units of crown and bridge in a single arch. That is if this is an anterior situation 7-10 and the canines would be done separately.

MUSC Currently one-on-one with a dedicated faculty in our Esthetic Clinic. This will eventually be phased out and esthetic cases will be handled in the main clinic (but with many more, small steps, appointments). There is increased patient cost for esthetic cases.

NOVA We are limited to 6 anterior units (veneers/crowns) for our Predoctoral students. We cannot do full mouths or exceeding number of restorations. We cannot increase vertical dimension of occlusion in the predoctoral clinic. These are the general rules that apply to both conventional and CAD/CAM dentistry.

In house CAD/CAM restorations, we mostly do single units but can do up to 6 restorations. We can do single pontic anterior bridges (that do not have a molar abutment). In select cases we can do implant supported provisionals however the cost of it is a burden to school so we only do very select cases. We do a lot of long term provisionals as well

UAB In our undergrad program access to complex cases is limited and usually referred to Grad Pros. I don't know if Grad Pros facilitates the referring student to assist/observe the treatment rendered..

UF -----

UK Although esthetic concepts are taught in didactic courses, each clinical esthetic case is unique. A select number of faculty (multi-specialty) who have extensive experience in esthetic dentistry have been identified and work one-on-one with the student to evaluate, treatment plan, and complete the case.

UL We have an OHR clinic staffed by prosthodontists

VCU Generally work with one of the Clinic Directors.

UNC An Operative Dentistry graduate resident is assigned to complex esthetic cases. The student works in tandem with the graduate resident to deliver care. The patient is treated in the Operative graduate clinic.

UK

1. The questions below, in table format, are with regard to pre-clinical operative courses.

AU

Course Title	How many contact hours for lecture?	How many contact hours for lab?	In what year in the curriculum is the course presented?	What is the Faculty/Student Ratio?	How many sessions focus on amalgam?
RSOP 5111	22	66	D1	1/10	11
RSOP 5212	22	66	D1		
FIXP5001	1	3	D2		1
PTSR 5901	1	3	D2		1

ECU

Course Title	How many contact hours for lecture?	How many contact hours for lab?	In what year in the curriculum is the course presented?	What is the Faculty/Student Ratio?	How many sessions focus on amalgam?
Operative Dentistry	Between 85 – 90hrs	Between 140-150hrs	1 st year	1/10	About 50 hours

MMC

Course Title	How many contact hours for lecture?	How many contact hours for lab?	In what year in the curriculum is the course presented?	What is the Faculty/Student Ratio?	How many sessions focus on amalgam?
OPDN-321	68/17	51	D1 Spring	60:5	All
OPDN-401	133/34	99	D2 Fall	60:5	All
OPDN-402	133/34	99	D2 Spring	60:5	0
OPDN-501	16/4-20	2	D3 Fall	60:1	0

MUSC

Course Title	How many contact hours for lecture?	How many contact hours for lab?	In what year in the curriculum is the course presented?	What is the Faculty/Student Ratio?	How many sessions focus on amalgam?
Operative 1	36	72	D2	1:18	all
Operative II	36	72	D2	1:18	none

NOVA -----

UAB -----

UF

Course Title	How many contact hours for lecture?	How many contact hours for lab?	In what year in the curriculum is the	What is the Faculty/Student Ratio?	How many sessions
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			course presented?		focus on amalgam?
Dental Anatomy	18	60+	DN1. Fall	1:8	
Operative I	20	60+	DN1. Spring	1:8	
Operative II	16	60+	DN2. Summer	1:8	Half of the course
Operative III	16	60+	DN2. Fall	1:8	
Cariology	8	20+	Dn1. Spring	1:8	

UK

Course Title	How many contact hours for lecture?	How many contact hours for lab?	In what year in the curriculum is the course presented?	What is the Faculty/Student Ratio?	How many sessions focus on amalgam?
RSD 810/814	48	110	First	1:10-11	7
RSD 813	15	0	First	N/A	0
RSD 811/812	41	89	First	1:8-10	0
RSD 822	23	54	First	1:10-11	0
RSD 823/824	22	54	Second	1: 10-11	0
RSD 825/826	17	54	Second	1:8-10	0
RSD 835	16	27	Third	1:13	0

UL

Course Title	How many contact hours for lecture?	How many contact hours for lab?	In what year in the curriculum is the course presented?	What is the Faculty/Student Ratio?	How many sessions focus on amalgam?
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Preclinical Operative	36	87	D1 7 one hour lectures only in the fall and 29 four hour sessions (lect plus lab) in the spring	1:20	9
Intro to Clinical Dentistry II	varies	varies	D2		
Auxiliary Retention	3	65	D3		
Operative Dentistry 3	9		D3		
Esthetic Dentistry	32	32	D3		

VCU

Course Title	How many contact hours for lecture?	How many contact hours for lab?	In what year in the curriculum is the course presented?	What is the Faculty/Student Ratio?	How many sessions focus on amalgam?
GENP 512 Pre-Clinical Operative Lecture, GENP 513 Pre-Clinical Operative Laboratory	68	332	D1	This varies. Sometimes we may have a 1:10 ratio, other times 1:16 when Faculty are attending meetings, etc.	Approximately one semester (it is a two-semester course)
NOTE: An Advanced Operative/Restorative Course for the D2 year is in the process of being approved to be added to the curriculum in the near future.					

UNC

Course Title	How many contact hours for lecture?	How many contact hours for lab?	In what year in the curriculum is the course presented?	What is the Faculty/Student Ratio?	How many sessions focus on amalgam?

Dental Anatomy	28	84	DDS-1	1:8	None
Dental Amalgam	28	0	DDS-1	Lecture	3 sessions
Conservative Operative Dentistry	30	145	DDS-1	1:8	15 sessions (50%)

2. What is your protocol for teaching resin infiltration pre-clinically and clinically?

AU At the moment we are not teaching that. One faculty has

ECU We have a specific lecture and pre-clinical lab session that covers resin infiltration. In lab an artificial lesion is created and later resin-infiltrated. We have ICON available in clinics, but further faculty calibration and training will likely increase its utilization.

MMC Incrementally?

MUSC We currently do not teach it at all.

NOVA -----

UAB -----

UF We teach it in the operative clinical course and students are only allowed to do smooth surfaces.

UK Resin infiltration protocols have been demonstrated to be effective with in vitro studies. However, no long-term clinical trials have yet to be published on the materials. We remain cautiously optimistic as more data is published in the scientific literature.

UL -----

VCU We do not teach this technique.

UNC If this question is referring to treatment of white spot lesions and enamel caries lesions with Icon, then we use it only in the Graduate Operative clinic.

UL

1. Bulk-fill resin composite promises to be more efficient, reduce polymerization contraction stresses, and reduce cuspal deflection.

Has your school switched to this type of resin composite? If yes, have the “traditional” composites been eliminated in posterior restorations? What is the evidence for or against these materials?

- AU** Bulk fill is the future, no matter how it is evaluated!
But, there is GOOD research showing that there are troubles - especially in marginal adaptation - particularly at the pulpal floor. Dr. Alan Furness and I did some work on that YEARS ago, and now, it is a VERY hot topic in the literature. I have a URL to a Brazilian study (excellently done) showing some issues with SOME products. <http://www.scielo.br/pdf/bor/v32/1807-3107-bor-32-e080.pdf>
I will be providing you with a consensus statement made by key opinion leaders in academics, industry, and clinicians, which I hope to get soon.
- ECU** We haven't incorporated bulk fill composites completely in our school (besides Surefil Flowable).
- MMC** No, we have not switched to this type of resin composite.
- MUSC** We have not switched
- NOVA** -----
- UAB** Here at UAB we have not switched to Bulk-fills yet but would like to introduce them in the near future.
- UF** We teach bulk-fill composites didactically and do a demonstration in Simlab. It is not implemented in clinics yet. We want to stress the artistry and develop their hands skills.
- UK** One recent long-term study (10 years) can be found below:
Heck et al; Clinical evaluation of the bulk fill composite QuiXfilin molar class I and II cavities: 10-year results of a RCT, Dental Materials 2018;34:e138-e147. This work only compares approximately 50 restorations of a bulk fill resin to the same number of hybrid resins, and reported that the bulk fill restorations displayed a slightly higher failure rate than the hybrid resin.
- UK does not teach or use bulk-filled resin composites at this time because, currently, there is not enough long-term clinical trial data (5 years or more in length).
- UL** No, we have not switched to this type of resin composite
- VCU** We have not switched to them as there is some concern regarding the depth of cure.

UNC Bulkfill composites are taught to the students (1st year dental materials course). They are exposed to them again in their 3rd year (advance operative dentistry course) where they have a hands on workshop on the use of the different bulkfill systems (veneered, complete fill and sonic fill). We have not made the switch from conventional to bulkfill in the student clinics. There is not enough evidence to support this. This may change soon. It will have to start with updating and calibrating the faculty, then introducing it to the clinics.

2. What is the environmental impact of the release of mercury from dental amalgam in the US?

What is known about the environmental impact of chemicals included in resin composite materials? What is known about the impact of chemicals included in resin composite materials on human health?

AU With respect to mercury released into the environment from dental offices, the EPA has initiated MANDATORY guidelines for installation of mercury scavenging systems in the effluent water of dental offices, before it is released into the general sewage line. These aspects must be in place by July 14, 2020. This is part of the US complying with the binding agreements of the Minimata Conference, which is leading on a phase out of mercury use in all industries eventually. <https://www.epa.gov/eg/dental-effluent-guidelines>

[Dental Effluent Guidelines | US EPA](https://www.epa.gov/eg/dental-effluent-guidelines)

www.epa.gov

Overview and documents for Dental Office Category regulation (40 CFR Part 441); comprising pretreatment standards for discharges of dental amalgam pollutants, including mercury, into publicly owned treatment works (POTWs).

I do not know what systems our school has in place to meet this requirement by that date. Someone needs to look into that, if we are going to continue to use amalgam here. So far in the USA, there is no "bad" of amalgam use, just a requirement to eliminate amalgam waste from entering the water systems. However, there are total bans in place in many parts of the world - especially in Europe and Scandinavia. I suspect that in Asia (except Japan), Africa, and South America, amalgam will be continued to be used as a primary restorative material for a long time to come, because it is easy to place and cheap.

With respect to goo leaching from dental restorations in to patient's mouths, there is a lot of literature - consensus is that it is nastier than dental amalgam. However, I do not think there is any information about uncured components entering the effluent water systems, and needing to be removed.

Some info related to this: <https://link.springer.com/article/10.1007%2Fs00784-007-0162-8>



[In vitro and in vivo studies on the toxicity of dental ... link.springer.com](https://www.springer.com)

In vitro and in vivo studies have clearly identified that some components of restorative composite resins, adhesives, and resin-modified glass ionomer cements are toxic.

ECU In Europe, Dental Amalgams are considered leading cause of mercury discharge and Human waste is 10 times more mercury in patients that have amalgam fillings. Also, Cremation leads to release of mercury fumes which ultimately leads to release in soil. However , In the US, ADA supports it. <https://www.ada.org/en/about-the-ada/ada-positions-policies-and-statements/statement-on-dental-amalgam>. Many studies show that they are safe for human use.
https://www.cda.org/Portals/0/pdfs/policy_statements/issue_amalgam.pdf

MMC Taught in D2 and D3 courses. Taught in D2 and D3 courses. Taught in D2 and D3 courses.

MUSC The environmental issue is, I believe, the reason amalgam will eventually be taxed out of use. Scrap amalgam (grindings) accumulates in city waste water treatment sludge. Burning this releases Hg into air, burring in landfills pollutes the soil. Cities are facing increasing costs to manage this heavy metal waste sludge and will eventually tax the metal users. Dentistry produces only 1% of the Hg added to the environment but politicians see us as rich, low hanging fruit so will tax us for releasing small amounts of Hg.
I also believe that bis-phenol-A glycidyl methacrylate will eventually be found to be harmful

NOVA -----

UAB -----

UF It has been demonstrated in studies that amalgam is safe and FDA and ADA still embrace it. There are research going on the safety of resin-based materials, but not definitive conclusion has been drawn.

UK Below is covered at UK in lecture format:
1. The environmental considerations of amalgam alloy is discussed in the UK didactic curriculum to include the Minimata convention agreements.
2. The health considerations of amalgam alloy is discussed.
3. The environmental impact of chemicals from resin composite materials is not discussed. The support for this question is scarce in the dental scientific literature.
4. The elution of monomers from resin-based dental materials is discussed.

A literature search related to the above questions is below:

Recommended Non-dental amalgam lit:
Bjørklund et al; The toxicology of mercury: Current research and emerging trends
Environmental Research, Volume 159, 2017, pp. 545-554

Ha, et al; Current progress on understanding the impact of mercury on human health
Environmental Research, Volume 152, 2017, pp. 419-433

Counter et al; Mercury exposure in children, a review Toxicology and Applied
Pharmacology Volume 198, Issue 2, 15 July 2004, Pages 209-230

UL From Environmental Protection Agency:

Dental offices are the single largest source of mercury at sewage treatment plants. Without amalgam separators, the excess amalgam waste will be released to the sewers. From sewers, amalgam waste goes to publicly-owned treatment works (POTWs) (sewage treatment plants). POTWs have around a 90% efficiency rate of removing amalgam from wastewaters. Once removed, the amalgam waste becomes part of the POTW's sewage sludge, which is then disposed:

- **in landfills.** If the amalgam waste is sent to a landfill, the mercury may be released into the ground water or air.
- **through incineration.** If the mercury is incinerated, mercury may be emitted to the air from the incinerator stacks.
- **by applying the sludge to agricultural land as fertilizer.** If mercury-contaminated sludge is used as an agricultural fertilizer, some of the mercury used as fertilizer may also evaporate to the atmosphere.

Through precipitation, airborne mercury eventually gets deposited onto water bodies, land and vegetation. Some dentists throw their excess amalgam into special medical waste containers, believing this to be an environmentally safe disposal practice. If waste amalgam is improperly disposed in medical waste bags, however, the amalgam waste may be incinerated and mercury may be emitted to the air from the incinerator stacks. This airborne mercury is eventually deposited into water bodies and onto land.

Release and toxicity of dental resin composite. Toxicol Int. 2012 Sep-Dec; 19(3): 225–234.

Some components of restorative composite resins are released in the oral environment initially during polymerization reaction and later due to degradation of the material. *In vitro* and *in vivo* studies have clearly identified that these components of restorative composite resins are toxic. But there is a large gap between the results published by research laboratories and clinical reports.

Taken together all the searched data regarding toxicity of resin composites, one can conclude that the earlier literature showed the components released to be toxic, carcinogenic and mutagenic but the recent data reveals the improvement due to introduction of newer material as a result of subsequent researches. On clinical standpoint this review strongly suggests to follow the technical considerations and the manufacturer's instructions regarding the polymerization of resin materials such as light intensity, light-curing time, distance between material surface and light source, compatibility between light and brand of composite and shelf life of material.

VCU Regarding ADA Statement on Bisphenol A and Dental Materials, “Based on current research, the Association [American Dental Association] agrees with the authoritative government agencies that the low-level of BPA exposure that may result from dental sealants and composites poses no known health threat”,
<https://www.ada.org/~media/ADA/Science%20and%20Research/Files/ADA-Statement-on-Bisphenol-A.pdf?la=en>. Accessed 09/06/18.

UNC With mercury, it is clear what impact it has on the environment. However, there is proper protocols set for their disposal in clinical practice.

We don’t know the impact that composite resin has. That is dangerous. We know that they are plastics and there are NO protocols set for their disposal. Most carpules have composite still remaining in them and are simply thrown in a general garbage bin.

3. Mountain Dew and other high sugar content drinks have been implicated in rapid caries progression. Can “soda mouth” mimic “meth mouth”? To what extent? Has Mountain Dew been implicated in any other serious diseases? If yes, how serious is the problem?

AU -----

ECU Yes, very much possible as meth users experience severe xerostomia which leads them to crave sugary things during the 12-hour buzz period. However, meth in combination with Mountain dew is extremely detrimental. Yes, serious diseases are occurring due to mountain like diabetes, high Blood Pressure if people drink in large quantities due to extremely high amount of sugar and caffeine. Mountain Dew has a pH of 3.4 which is comparable to battery acid, 20 OZ mountain dew has 77g of sugar and studies show that it has a detrimental effect on human brains and can lead to shorter life span. Presence of BVO in mountain dew has also lead to serious health concerns.

MMC Yes and exacerbated in xerostomic mouths. Diabetes

MUSC Can “soda mouth” mimic “meth mouth”? Yes, I have seen it. To what extent? It is typically not as severe as meth-mouth because meth users also have impaired mental abilities that results no oral hygiene at all. Many chronic soda drinkers still at least brush at least occasionally. Has Mountain Dew been implicated in any other serious diseases? I am not aware of any other that that it contributes to the high sugar diet which is implicated in type II diabetes.

NOVA -----

UAB -----

UF We don’t believe that “the soda mouth” mimic “the meth mouth” as both represent different etiological factors. The meth mouth is characterized by xerostomia, extensive carious lesions, enamel erosions, extensive teeth crunching, bruxism, muscle trismus,

and lockjaw. Even though both conditions share some clinical characteristics (extensive lesions, erosion), the most important contributing factor for the disease in the meth mouth is the xerostomia.

Free sugar (not only present in Mountain Dew) has been implicated in chronic diseases such as diabetes, hypertension, obesity, premature deaths and others. WHO changed their recommendation in sugar intake on 2015 and now : *“In both adults and children, the intake of free sugars should be reduced to less than 10% of total energy intake. A further reduction to below 5% of total energy intake would provide additional health benefits.”*

UK Dietary considerations and dental implications involving high-fructose-based beverages and dental caries is covered in the Cariology didactic curriculum.

UL Dental erosion due to abuse of illicit drugs and acidic carbonated beverages. Gen Dent. 2013 Mar-Apr;61(2):38-44.

Consumption of illicit drugs and the abusive intake of acidic carbonated beverages (particularly soda) often are associated with similar types of damage to the human dentition, the most common of which is dental erosion. The dentitions of individuals who are addicted to methamphetamines or crack cocaine can be misdiagnosed as dental caries rather than generalized dental erosion, a condition that also is associated with chronic excessive consumption of soda. The researchers noted that the participants each had the same type and severity of tooth erosion damage.

Appalachia, according to Bassiouny, a researcher and professor of dentistry at Temple University, is "ground zero" for soda addiction. Some people he treated consumed more than a dozen 12-ounce cans of soda a day.

Mountain Dew or mountain don't?: a pilot investigation of caffeine use parameters and relations to depression and anxiety symptoms in 5th- and 10th-grade students. J Sch Health. 2009 Aug;79(8):380-7.

Although both children and adolescents experience negative caffeine-related outcomes, intake is seemingly not greatly limited in either cohort. In particular, youth appear vulnerable to increased depressive symptoms with increasing caffeine consumption.

As of 12 February 2018, brominated vegetable oil (BVO) was still a listed ingredient in Mountain Dew on the beverage's PepsiCo web site nutrition page and on the product packaging itself.

Mayo Clinic: Health concerns about BVO stem from the fact that it contains bromine, the element found in brominated flame retardants. Only a few studies have looked at possible safety issues, but it appears that bromine builds up in the body. There also have been a few reports of people experiencing memory loss and skin and nerve problems after drinking excessive amounts (more than 2 liters a day) of soda containing BVO.

Bromism from excessive cola consumption. J Toxicol Clin Toxicol. 1997;35(3):315-20.

The patient presented with headache, fatigue, ataxia, and memory loss which progressed over 30 days. He consumed 2 to 4 L of cola containing brominated vegetable oil on a daily basis before presenting with these symptoms. His significantly elevated serum chloride, as measured by ion specific methods, and negative anion gaps were overlooked during a prior hospitalization and emergency department visits. A focal neurologic finding of right eyelid ptosis led to an extensive evaluation for a central nervous system lesion. The patient continued to deteriorate, until he was no longer able to walk.

Soft drinks consumption and nonalcoholic fatty liver disease. World J Gastroenterol. 2010 Jun 7; 16(21): 2579–2588.

From the above, it could be very serious, especially in our region of the country.

VCU -----

UNC There are some studies linking carbonated sweetened carbonated beverages to increased risk of stroke. I don't know of other specific studies implicating Mountain Dew specifically.

UNC

1. What are the light curing units that your school is using on the clinic floor? Is the radiant output measured on a routine bases? What are you using for such measurement and how often?
-

AU -----

ECU We have the Ultra dent Valo. The radiance used to be measured at least once a year for the past few years (by a faculty member that is now retired). We recently acquired a MARC unit that will be implemented in the near future for monitoring of our LC units.

MMC We are switching to student owned Rarii Cal by SDI Limited (Australia) beginning this year which has a system for measuring output

MUSC 3M ESPE Elipar S10
It is "required" to be checked at the end/beginning of each semester. Students are "supposed" to check it as used.

NOVA Demi Ultra- Kerr

UAB We use the VALO from Ultradent. The output is not measured, there is no protocol in place for it.

- UF** We use Valo (Ultradent). There are measures once a year with a MARC unit.
- UK** We use the Valo Curing Light from Ultradent. Unfortunately, irradiance has not been routinely assessed on the clinical floor and methods (bluephase Meter II) to incorporate routine maintenance is taking place by the new restorative dentistry division chief.
- UL** ALO® broadband LED curing light. Evaluated monthly by dispensing staff.
- VCU** Currently the pre-doctoral clinics are utilizing the Dentsply SmartLite® iQ™2. However, in the pre-clinical laboratories, the students are using the Dentsply SmartLite® FOCUS, which will eventually replace the older iQ2s in Clinic. The radiant output is measured by the clinic staff on a scheduled basis, once a semester.
- UNC** Students are provided with ONE light curing unit (VALO) for both pre-clinical and clinical levels at UNC SOD.
Hand-held radiometers (Bluephase II, Ivoclar) is available to all assistants that are assigned to do a bi-weekly evaluation of irradiance and energy output from each curing light. We will be moving to the MARC CHEC system which is a more sophisticated radiospectrometer that can provide more accurate information.
2. How is shade selection taught in the curriculum? Are there any guidelines in place for provider-lab communication?
-

AU

Freshmen year:

Pre-Clinical operative course (RSOP 5212)

Sophomore year;

It is review in clinic, during a clinic rotation, based on restoring a composite.

It is also review in the fixed course (lecture)

Junior years

Lecture in class (esthetic course)

Dental materials

ECU There are specific shade selection lectures within Operative and Fixed Pros courses that go over provider-lab communication guidelines. That sometimes can be customized by clinical faculty depending on the case needs.

MMC Shade selection is taught in the D3 year with a lecture on Color Science and Shade Selection.

MUSC There is a lecture on this in Operative II but nothing in lab. Fixed Pros also teaches this. We do not have any guidelines in place.

NOVA We teach shade selection as a separate lecture within Cosmetic dentistry. We have a lab form that has the color map that allows us to draw and enter text next to it for communication with the lab

UAB -----

UF We teach it during the advance operative courses (Operative III). They are exposed to subjective devices such as different shade guides. Also, students are taught to whenever the shade is selected, they should try them (cervical third for determining dentin and mid third for determining enamel) in the patient's mouth after light curing the small amount of composite. The objective devices are also introduced to them, but we do not have them in clinics.

UK Shade selection for composite material is taught by explaining Hue, Chroma, and Value and then presenting shade guides and usage, such as the Vita Classical Shade Guide.

Shade mapping is discussed during the introduction of monolithic zirconia and PFM preparation. The students have a graded project which involves completing a lab prescription form.

UL Vita and Vita 3D shade guide.

VCU Shade selection is introduced in the spring semester of the D1 year in pre-clinical operative. In the pre-clinical fixed prosthodontics laboratory course in the D2 year, the steps and conditions for proper shade selection are taught in lecture; and in the clinical setting, students sometimes assist selecting the shade, which is approved by either the attending faculty and/or a laboratory technician.

UNC Vita 3D Master (Linear guide), Vita Easy Shade, Color corrected light sources. Students receive didactic and hands on training in Advanced operative dentistry course.

VCU

1. How are Clinical Operative Dentistry courses run (i.e. what's expected, how are they graded, etc.)? How are the quality of the restorations placed clinically assessed?

AU Daily Clinic evaluation
Rubric

ECU We don't have a specific Clinical Operative course. Their expectations are in terms of number of repetitions, pre-requisites and clinical skills assessments. They are graded daily for regular procedures and with specific rubrics when challenging skills assessments. The quality of restorations placed are evaluated at the end of the sessions, at case completion appointments, at recalls and at patient transfer evaluations. There is no specific form for the assessment of recently placed restorations.

MMC Dr. Valencia McShan teaches all of the D1/D2/D3 courses. The D1 course is taught in the Spring Semester. The D2 course is now a full-year course. The D3 course is a Fall Semester Course. Restorations are assessed daily in the laboratory.

MUSC -----

NOVA -----

UAB -----

UF Quantity: RVU's (relative value units) are 30% of the grade
Quality: Clinical skills, professionalism, infection control, patient management, critical thinking represents 70%
Rubric attached.

UK Clinical restorative dentistry assessments are currently under review by the new restorative division chief. There is a plan to move from a numerically graded assessment to a clinically "Acceptable vs. Non-acceptable" format to reduce the subjectivity of assigning a percentage grade.

An example: RSD 831 (Clinical Course – 3rd Year):

RSD 831 Summary of Requirements

Clinical Procedures (Daily grades) • 30 clinical Procedures

Successfully Complete Clinical Skills Assessments • Class III Composite preparation and restoration

• Class II Composite or Amalgam preparation and restoration

Grading Components:

50% - Daily grades: graded clinically by covering instructor.

50% - Clinical Skills Assessments: graded clinically by covering instructor.

An example: RSD 841 (Clinical Course – 4th Year):

• They are expected to complete a threshold # of 40 experiences. All preps and restorations are graded on multiple points by the supervising faculty for that day on paper. The grades are averaged (0-100%) for the final overall grade.

• There is one graded project of a 3 unit FPD and single crown on dentofrom.

• There is one graded laboratory communication project.

• There are 3 clinical competencies (Pass/Fail)

1. Clinical crown competency with provisional

2. CL III and CL II under Mock Board simulation

• There are 2 non-clinical competencies (Pass/Fail)

1. 3 unit FPD and 1 anterior all ceramic crown on dentofrom under Mock Bd simulation.

Typically, we remediate and retake. Sometimes the failure is minor or they would learn more from corrections than a full retake. It depends on the competency and the cause of the failure. Example would be an undercut or under reduction on the dentoform crown prep. I think they learn more by correcting after some discussion to make sure they see and understand. The corrections are re-evaluated and serve as the retake. For the case of remaining decay on CL II or III clinically, a retake must be completed. Open contacts on restorations are just redo on the same restoration to correct the open contact.

UL A D3 and D4 clinical operative course that students perform both formative and summative assessments. The D3 year is mostly formative patient experiences with simulated OSCE's graded on a 0-2-3 basis. The D4 year is mostly formative experiences, patient based comps and mock boards.

VCU In our D-3 Clinical Operative Dentistry Course, there are several expectations of the students. First they must accumulate a specific number of Restorative Points. The quality of the restoration is judged by the attending faculty and that faculty will decide if the restoration is a quality preparation and restoration or if it should be replaced. No daily grades are given. A large percentage of the grade in this course is based on how many restorative points the students achieve.

Two years ago, this course became a "skill development" or "formative" course. As such, most of the operative dentistry competencies were moved to the fourth year course. So, this course is basically a course where the students do restorative procedures repetitively in an effort to approach competency.

The two competencies the course does have are Caries Risk Assessment and Post Treatment Operative Dentistry Evaluation. The students must do five of each with a self-assessment and followed immediately by an independent faculty assessment. Once they have completed five of each, they can then challenge the competencies, again with a self-assessment and a faculty assessment. These are all done on a pass/fail basis. If one of these is failed, then the student must do another one, but there is no overall grade penalty for failing.

The students are also tasked with doing four Formative Assessments in D3 Clinical Operative. These self-assessments/faculty-assessments are done on any restoration that would also qualify as a D-4 Competency, i.e. Class II, III, IV and Cuspal Coverage Restoration, and are graded pass/fail. The forms used are designed after the grading rubrics used on the regional clinical examinations and our D-4 Competencies. Each student must successfully complete four of these assessments. If one is failed, then they do another one with no overall grade penalty.

There are two written examinations on basic knowledge that the student should have to treat patients in the clinics. The first exam will center on basic information, clinic protocol, tooth preparation design, restorative materials, pathology, anesthetics, etc. The second one, given toward the end of the year, will be more patient case-based asking them to read a case history and answer questions related to the history. There is a

minimum grade expectancy for both of these examinations. It is up to the Course Director as to how to remediate a less than satisfactory grade.

Finally, there are the General Practice Group Leader Professional Evaluations. These evaluations are done twice during the third year for a percentage of the final grade in this course. The Group Leaders evaluate each student on several different areas of the student's clinical performance. The first one, which is weighted less, is done early in the year and the final one, weighted more is done toward the end of the D-3 year. Should a student receive a less than satisfactory evaluation, the Course Director and the General Practice Group Leader will make recommendations as to how to remediate this shortcoming.

It is the Course Director's objective to try and determine the level at which students are performing when they enter the clinic at the beginning of the D-3 Year and to measure their development at the end of their D-3 Year.

UNC The clinic Operative clinics are part of the general dentistry clinic. The protocols and procedures taught in pre-clinical course, Conservative Operative Dentistry, are followed in the clinic. Letter grades ranging from A-F are assigned based on the quality of work, which in turn is calculated in points.

Both the complexity (weight) of the procedure and the performance of the student (grade) determine point designations. Weights are based on the number of surfaces involved for a given restoration.

Procedure (example)	Weight
1-surface amalgam or composite	1
2-surface amalgam or composite	2
3-surface amalgam or composite	3

The total number of points you will receive for a given clinical procedure is calculated by the following formula:

Points = weight x value

Based on the above, here is an example of a points calculation for a clinical procedure:

- MOD amalgam receives a grade of B
- MOD (3 surfaces) has a weight of 3
- A "B" has a value of 3
- Points for the procedure: $3 \times 3 = 9$

2. What bonding agent and composite resins are most schools using, and is there a clinic policy on the use of dental dam, Isovac, Isodry, and/or Isolite?

AU RD primary, Isovac secondary

ECU We use all bond 3 and Opti bond. There is no strict clinical policy and the use of rubber dam x Isovac is determined on a case by case basis.

MMC We are not using Isolite, Isodry, or Isovac systems. We are using traditional rubber dam systems and they are required in the clinic with an occasional exception for difficult access amalgam restorations. All composite restorations are expected to have rubber dam.

MUSC We use Optibond XTR and Clearfil Majesty composite.
Rubber Dam is the preferred standard; IsoDry is also available. All restorative work and especially composite use requires positive moisture control.

NOVA -----

UAB The dental dam is mandatory for operative procedures and Endodontic procedures.

UF Dental Bonding Agents: Optibond FL, Clearfil SE Bond 2, and Scotchbond Universal.
Resin-based Composites: SurFill SDR, Filtek Supreme Ultra.
Isolation: Rubber Dam (Primary), Isodry/lite.

UK At UK, we use Optibond FL (bonding agent), Filtek Supreme Ultra (Composite Material), and we mandate use of Rubber Dam for all patients.

UL Bonding agent: Ivoclar excite F
Resin: Ivoclar EvoCeram

VCU VCU is currently utilizing Optibond Solo Plus for our bonding agent, and Kerr Revolution Flowable and Z250 hybrid composite. We are looking to change to Filtek Supreme, and are also looking at other bonding agents.

We teach utilizing the dental dam whenever isolation is needed, as a first choice. Factors that would prohibit its use would be patient factors: anatomical or claustrophobia, etc.

UNC At UNC, rubber dam use is enforced heavily, and it is mandatory with very minimal exceptions where mostly an Isovac isolation is used. We use one bonding system that has clinically proven success and that is the two step self-etch with selective etching of enamel (6th generation) SE Bond2. Students are taught in various levels about the other bonding systems, however, they use one system in pre-clinical and clinical practice. The composite resin used is Filtek Supreme Ultra.

UAB

1. Do you have an exit exam for patients that have completed care and need to be placed in Maintenance? If so, can you share the protocol/procedure?
-

AU Yes, we have an exit exam. We use a code D0005, which is an audit code indicating that all treatment is complete. A D0120 is added if appropriate, as the exam is essentially a D0120: Med hx review, Head and Neck exam, dental exam, CRA, Perio probing. The D0005 code is added to all terminal tx plans when they are first created, so the Phase 2 plan if no pros is involved, or the Phase 3 plan if indicated. If the code is not completed, it is identified on student chart audits by the Care Coordinators.

ECU -----

MMC -----

NOVA -----

UAB During the last appointment the supervising faculty goes over the treatment plan and last exam with the treating student, verifying all treatments proposed have been performed, and if not, a reason why is noted. Records , radiographs etc are checked for proper approvals and such. A form is filled out noting the deficiencies found and remediation plan (e.g. radiographs not approved get the approval)

UK Upon completion of the treatment plan, a reassessment is accomplished. Depending on the clinical treatment completed, new X-rays may be taken to evaluate restorations as well as to diagnose a new or recurrent disease process. Once active disease controlled or treated, patients are placed into a periodic oral exam program (exam plus cleaning). Periodontal maintenance patients have a separate recall protocol.

UL -----

VCU The following is an excerpt from the VCU School of Dentistry Clinic Manual:
"Upon completion of the Oral Disease Control Phase of Treatment, students will complete the Oral Disease Control and review it with the designated faculty. Once approved, an entry will be made in the EHR stating that "ODCT was completed and approved by the supervising faculty."

2. What have you found to be a better way (more buy in) regarding calibration in Operative?
Seminars, Hands-on, some sort of consequences if not adhering to Clinical Guidelines? And how are those methods implemented and assessed for efficacy

AU Faculty Calibration in Operative. Fortunately, most of our clinical operative faculty also teach in the pre-clinical course so all are calibrated along with the students as protocols change. When we added ICDAS training in the second year, we included (nearly) all diagnosis faculty as well as having Operative faculty teach in the lab. Additionally, we have quarterly meetings to iron out variations and post (anonymously) the individual faculty grading averages for feedback.

ECU -----

MMC -----

NOVA -----

UAB We have a series of calibration sessions, but those DO NOT produce Buy-in... I find the whole process a bit frustrating.

UK Excerpts from didactic lectures have been placed in a Powerpoint on Canvas. Participation and review of content can be monitored via Canvas. Collections of images from student didactic sessions are also available via Canvas. If clinical guidelines are not being followed, the individual is privately counseled by the Restorative Division Chief and/or the Associate Dean for Clinical Affairs.

UL -----

VCU In the past, the Department of General Practice would have a yearly one-day faculty retreat with department faculty presenting various summaries and/or updates of what they teach. For the past three years, however, all part- and full-time faculty in the Department of General Practice are required to successfully complete a GP Calibration Course via Blackboard. The course currently consists of 14 modules comprised of powerpoints and/or articles; each module has a short, multiple choice quiz. Current topics include Cariology, CAD/CAM, Ethics, Perio, Endo, etc. The topics are updated and new modules are added as needed. Faculty are given a deadline to successfully pass the quizzes and must complete the entire course in order to cover any of the GP pre-doctoral clinics.