

DMD CURRICULUM COMMITTEE COURSE CHANGE PROPOSAL

(Submit completed form to the Office of Education, gchilds@den.dental.ufl.edu)

Date: May 7, 2013

Course Title: Community Dentistry I (DEN 8708L)

Department: Community Dentistry and Behavioral Sciences

Course Director: Dr. Micaela Gibbs

Request/Revision: Add an additional 3 half days of required rotation to this course, focused on special needs patients at Tacachale Clinic in Gainesville, Fl.

Rationale: (If you are requesting additional class time please include why this time cannot come from re-prioritizing the current content, shifting to independent study in areas of direct instruction and/or cannot be incorporated in another existing course.)

Revised CODA standard 2-26 states: "Graduates must be competent in assessing the treatment needs of patients with special needs." Prior to the most recent revision, the standard was a "should" rather than a "must" statement.

Currently, UFCD students have exposure to special needs patients in their third and fourth years during a half day rotation in the third year at Taccachale, during their OR and clinic time on pediatric rotation in the fourth year, in the TEAM clinics and during Extramural Rotations. Currently, the extramural experiences are tracked, but not evaluated for competency.

To meet the new standard, we propose adding an additional 3 half days of clinical experience at an evening and Saturday clinic that is open to all special needs patients in the area. Up to 3 nights per week, Dr. Tim Garvey, UFCD faculty member, and his team provide comprehensive dental services to patients who would have no other option for care. He has agreed to allow senior dental students to work with him and his staff in the delivery of care to these patients.

This evening and/or Saturday experience would be an innovative alternative to daytime scheduling avoiding further interruption of TEAM clinic comprehensive care. Seniors would choose three additional half day sessions in evening and/or Saturday sessions. ~~Students would have the option of being excused from their afternoon clinic session on the day of their night clinic if they so chose.~~ Students would enter procedures completed into the rotation into the RVU database and receive credit for procedures completed as they do on extramural rotation.

Competency would be insured by _____ (Insert description of tool here)

This new clinical experience for senior dental students will ensure that they are competent in the evaluation of special needs patients.

Student hours requested by event and science type:

Hours by Type	Biomedical Hrs.	Behavioral Hrs.	Clinical Hrs.	Total Hrs.
Lecture/seminar			0	0
Independent			0	0

study				
Laboratory			0	0
Clinical			12	12
TOTAL HOURS			12	12

Department Chair Approval: ____ YES ____ NO Signature _____

Proposed implementation date/semester ____ Fall 2013 ____

Curriculum Committee Action:

Approved in Concept		
Approval		Credit Hours Change
Reject		

Date 05/02/2013

Check one:

<input checked="" type="checkbox"/>	New Elective
<input type="checkbox"/>	Elective Renewal
<input type="checkbox"/>	Elective Modification

Course Title Digital Denture Fabrication

Department Prosthodontics

Course Director Dr. Monica Fernandez

Department Chair Approval: YES NO

Elective type (check all that apply):

<input checked="" type="checkbox"/>	lecture	<input type="checkbox"/>	research	<input type="checkbox"/>	intramural
<input type="checkbox"/>	laboratory	<input type="checkbox"/>	independent	<input type="checkbox"/>	extramural
<input checked="" type="checkbox"/>	clinical	<input type="checkbox"/>	Grad seminar	<input type="checkbox"/>	international
<input checked="" type="checkbox"/>	Other, describe <u>online module</u>				

Recommended Class Year: (check all that apply):

<input type="checkbox"/>	1DN	<input type="checkbox"/>	2DN	<input type="checkbox"/>	3DN	<input checked="" type="checkbox"/>	4DN
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Number of students: Maximum 3 Minimum 1

Entry level prerequisite Senior with 3 completed conventional dentures and available patient.

Student hours required

	Day	Evening	Weekend	Holiday/ Break Week	
Lecture/seminar	3				
Independent study	4				
Laboratory					
Clinical	8				
HOURS					TOTAL HOURS
					15

Elective semester offering: one time recurring

Beginning date/semester 9 Completion date/semester 11

Elective Description: *(For additional space please request an ECO course be created for elective development)*

Course Goal

See ECO syllabus

Outline

Methodology/Activity planned:

Evaluation mechanism / Criteria:

Send completed form as pdf to the Office of Education, gsmithell@dental.ufl.edu

Curriculum Committee Approval date _____ Credit hours assigned _____

The Foundation for The Gator Nation

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1. General Course Information

Course Director:

Credit Hours:

Components of Module: Online module, 2 Pre-Clinical Sessions, 6-8 Clinical Sessions and 1 Post-Clinical Sessions

Criteria for enrolling in this course:

Enrollment in this course is limited to students who have completed at least 3 complete conventional denture procedures and have current GPA of 3.0 or above for their work. Additionally, students would need to have a patient treatment planned for a C/C up to the preliminary impression stage.

2. Purpose of the Course

Digital Complete Denture builds upon the knowledge and skills that were learned during DEN6460C Prosthodontic Treatment of the Edentulous Patient. The student's knowledge of the biomechanics and biological condition of edentulous patients and dental materials will be applied to the edentulous patient requiring complete dentures. You will learn to understand biological considerations of impression making and recording jaw relations using an Anatomical Measuring Device (AMD) and a Gothic Arch Tracing (GAT). Also, you will learn clinical and laboratory procedures related to the CAD/CAM fabrication of complete dentures. This will include primary and final impressions; digital previews of the teeth try-in and advanced teeth try-in procedures. Understanding digital teeth arrangement will be an important part of this section. You will thus increase your ability to make a diagnosis and treatment plan for the rehabilitation of such patients. You will learn to evaluate and modify denture teeth arrangement in an advanced try-in protocol. You will arrange/evaluate teeth set-up and verify that the occlusal scheme is accurate and true to the records supplied. This course will also integrate basic science concepts into the treatment of the edentulous patient. From the information learned prior to and during this course the student will be able to diagnose, treatment plan and treat the uncomplicated edentulous prosthodontic patient.

The clinical sessions are fundamental to the course. During the clinical sessions the student will learn to apply the knowledge of edentulous patients, digital procedures, oral anatomy, biomechanical principles of jaw motion and dental material concepts to restore the stomatognathic system, assuring proper function and esthetics.

As part of the learning process, one educational objective of this module is to aid students to recognize and develop behaviors characteristic of the dental profession. These behaviors are conceptualized in terms of respect, communication skills, responsibility, self-awareness and self-evaluation. In addition to knowledge and skills development, these concepts will be emphasized throughout this course.

3. Goals of the Course

The goals of this course are to reinforce the basic skills and foundation knowledge in removable prosthodontics and assist students in the use of digital denture technologies in

treating edentulous patient.

4. Student Objectives

Digital Dentures belong to a new technology using Computer-Aided Design (CAD) and Computer-Aided Manufacturing (CAM) to produce a complete denture. This new technology was developed as an alternative option to solve the range of problems inherent to conventional denture procedures. After some research and studies, CAD and CAM systems were developed to aid in the analysis and manufacture of dentures. Using this patented technology, dentures can be fabricated saving time by only needing to see the patient two or three times before dentures are delivered. The patient's first visit consists of records and impression making. Followed by an advanced try-in protocol, then, the delivery of the final denture to the patient.

The student must utilize outstanding organizational skills, demonstrate meticulous attention to detail and maintain intense focus, in order to achieve positive laboratory and clinical outcomes. Upon completion of this Module the dental student should be able to:

1. Perform clinically acceptable standards and principles of CAD/CAM for complete dentures utilized in the treatment of the uncomplicated edentulous prosthodontic patient in each patient visit.
2. Gather diagnostic information, diagnose and treatment plan the uncomplicated edentulous patients.
3. Sequence for a digital denture fabrication using standardized clinical and the laboratory steps in the fabrication of a digital denture.
4. Describe basic occlusal relationships: monoplane versus lingualized occlusion as well as balanced occlusion principles.
5. Evaluate the techniques involved within the fabrication of a digital complete denture including impression making, appropriate records making, teeth try-in protocols, fitting and delivery of these dentures as well as follow-up procedures.
6. Describe the importance of, and the criteria used to evaluate, acceptable laboratory work like teeth try-in and the final dentures.
7. Properly complete laboratory prescriptions as required when fabricating CAD/CAM complete dentures by a commercial dental laboratory.
8. Differentiate among the indications, contraindications and limitations of CAD/CAM systems
9. Apply appropriate basic teeth selection principles (gender, face structure, skin tones, bone reabsorption patterns, arch form, esthetics, phonetics, etc.) and color science to the fabrication of the complete dentures.
10. Deliver a digitally created denture to a comprehensive care patient.
11. Document and present the case after dentures are delivered and had at least a 24 hours follow-up

5. Learning Resources

The learning resources for this module include, but are not limited to:
Lectures and audiovisual materials;

Journal articles, handouts and other printed materials;
Reference materials including required and recommended textbooks;
Resource people including faculty, graduate students and other health-care providers;
Students will have access to Laboratory and Lecture handouts, criteria and evaluation sheets

6. Teaching Methods

This will be a blended course (online content, 2 classes, 6-8 clinical sessions and one presentation.)

Overview of Student Evaluation Methods

Online and Class Portion of Module (Pre-Procedural Portion)

The online module will provide content and audiovisuals (4 hours). Students will complete two online quizzes to assess preparedness. Each quiz will be 15% of the course grade. Two classes sessions will be conducted to answer questions and prepare students for clinical patient care.

Clinical Portion of the Module

Each step in the fabrication of the digital dentures will be evaluated individually following the criteria and evaluation sheets.

The Clinical Portion of this module constitutes 40% of the overall course grade and a passing grade is considered to be 70% or higher.

Post-Clinical Portion of the Module

Case based presentation

Student must present the finalized case with the pictures of the pre-op through the final delivery day.

Post-Clinical Portion of this module constitutes 30% of the overall course grade and a passing grade is considered to be 70% or higher.

Childs,Gail Schneider

From: Culp,David
Sent: Monday, May 06, 2013 4:17 PM
To: Dolan,Teresa A
Cc: Robinson,Boyd E; Spencer,Christopher; Sposetti,Venita J; Culp,David; Childs,Gail Schneider; Stewart,Carol; Ottenga,Marc Edward; Echeto, Luisa Fernanda; Guelmann,Marcio; Nair,Uma P; Rody,Wellington Jose,Jr; Dennis,Matthew J; Primosch,Robert Eliot; Dilbone,Deborah; Harrison,Peter Lloyd; Willis,Thomas W; Bhattacharyya,Indraneel
Subject: Curriculum Revision Steering Committee - Final Report
Attachments: Revised Curriculum-Course Map.xlsx; Revision Report Summary.docx; Revision Report.docx

Dear Dean Dolan,

I attach files that represent the final report of the Curriculum Revision Steering Committee, plus a summary document. The report was approved unanimously by the committee members. The report also was reviewed during a special meeting of the Curriculum Committee on May 1st and is on the agenda for a committee vote at the May 13th meeting.

I believe we have address all of the charges assigned to our committee, although the issue of rotations received little attention due to the recent review by the Curriculum Committee. We understand that this report represents a starting point for discussions and the formation of workgroups to address all of the many complex issues at hand, some of which the committee could not reach consensus.

A potential area of concern that presented itself during the final review and approval process was the coverage by students in the TEAM clinics during the summer semester, as rising Juniors still have some didactic course requirements and rising seniors start a heavy dose of rotations. This issue should be a focal point during subsequent deliberations by the college faculty, and again highlights the role and timing of rotations versus in-house clinical staffing by students versus the patient pool.

I am proud of the work by committee members in offering new and exciting approaches to the charges assigned to the committee as well as in addressing many of the forthcoming areas of new emphasis in the CODA standards and the National Board Dental Exam. I am deeply appreciative of all the hard work by committee members to make this report possible. I am hopeful that many of these new approaches will be embraced by the faculty members of our college.

Sincerely,

David J. Culp, Ph D
Professor of Oral Biology
UF College of Dentistry

REPORT OF THE CURRICULUM REVISION STEERING COMMITTEE

DRIVERS OF CURRICULAR CHANGE

1. Drivers associated with limitations of the current curriculum

There are multiple factors driving curricular change. Key factors associated with the current curriculum include:

- Overscheduling of total in-class contact time predominantly passive learning (e.g., lectures) that are not the most effective use of student and faculty time.
- The front-loading of basic biomedical sciences resulting in poor retention and integration of biomedical sciences into clinical training.
- Requirements for completion of a specific number of individual departmental clinical competencies, units and RVU's within a given period, resulting in motivation of students towards completion of procedures rather than focusing on comprehensive care of the patient. An unintended consequence is the switching of patients between students in order for each to complete required procedures, resulting in patients being treated by multiple students and usually over an excessive amount of time. This is unfair to patients and is grossly inconsistent with students fully comprehending and respecting comprehensive patient care.
- Insufficient time during the day for students to be involved in research or to take electives, such as to gain experience in clinical specialties.

2. Drivers associated with a rapidly changing profession

Other key factors driving curricular change are related to on-going and future changes in the profession that will require dentists to engage successfully in analytic inquiry and to integrate, adapt and apply their learning as required in order to take appropriate actions on complex and often unanticipated challenges throughout their professional career. As new advances in the biomedical sciences continue to develop at a rapid pace, dental clinicians will increasingly have to critically evaluate new therapeutic options within the context of the oral and systemic health of the patient. In recognition of these changes the Commission on Dental Accreditation (CODA) is requiring more critical thinking and acquisition of evidence-based information in clinical reasoning and problem solving in the curriculum, as well as demonstration of opportunities for research or other forms of scholarly activity. More specifically, new CODA standards require students to:

- Integrate medical treatment into dental treatment plans
- Identify the need to consult with other health care providers
- Critically appraise, apply and communicate scientific literature

CODA defines competencies as written statements describing the levels of knowledge, skills and values expected of graduates to begin independent, unsupervised dental practice. CODA further indicates that “assessment of competencies must extend beyond completing a specific number of projects and procedures”. Additional emphasis will be placed on sustaining a humanistic environment and on cultural competency

3. Drivers associated with changes in the national board dental examination

The National Board Dental Examination is transitioning to a single integrated exam, currently earmarked for 2017. The exam is going primarily to a case-based format of questioning. Students will be required to integrate factors related to the biomedical, dental, cultural, socioeconomic and governmental regulatory aspects of a case. These changes coincide with the new CODA requirements described above and support the integration of biomedical sciences into a case-based curriculum that emphasizes patient comprehensive care.

SOME THOUGHTS ON IMPLEMENTATION OF THE PROPOSED CURRICULUM

Implementation of a revised curriculum is expected to occur over an extended period of time, likely 3 to 4 years, as students advance from freshman to seniors. It will require a number of important changes in clinical assessment (i.e., focus on comprehensive patient care) and in the distribution and presentation of course contents throughout the curriculum. A vital change is the progressive presentation of biomedical sciences via an organ systems approach throughout semesters 1-9, in a manner that integrates the biomedical, behavioral and oral clinical sciences. Furthermore, the development of a student's clinical skills (psychomotor, diagnostic and treatment planning) is to coincide with the didactic curriculum. The collective changes proposed are designed to promote the assimilation and integration of didactic material within the context of clinical practice by consistently challenging the critical thinking of students. Key to challenging students is to incorporate into the curriculum comprehensive case-based lessons that use methods of adult learning, and by demanding students rationalize decisions based on the best available evidence from systematic research.

Some changes may be implemented sooner than others. For example, some of the alterations in clinical assessments, as well as the institution of college-wide case-based presentations may be more readily assimilated into the current curriculum. Note, already underway are changes in the semester 5 clinical exam that are in-line with the proposed revision. Some changes will necessarily need to be implemented sooner than later. This is especially true for reorganization of didactic courses. Keep in mind that we currently teach all of the contents proposed in the revised plan. The major threshold to overcome is the rearranging of contents into new courses while reducing redundancies. In the revised plan, the time allotments for courses are based on current lecture/lab/exam hours that are devoted to course topics. Total in-class time for students each semester is reduced by decreasing redundant material across courses, and by distributing the biomedical sciences throughout semesters 1-9. It is therefore anticipated that lectures will initially remain a primary method to deliver didactic material until faculty become more acquainted with different methods of active learning and begin to incorporate these instructional methodologies into their courses. Presently, an increasing number of faculty members are experimenting with different active learning strategies in courses, or are learning about active learning methods through faculty development initiatives.

GOALS OF THE CURRICULUM REVISION STEERING COMMITTEE

The goals guiding the curriculum revision process are related directly to the drivers for curriculum change described above; limitations of the current curriculum, preparing students for a rapidly changing profession, and changes in CODA standards and assessments. The Committee's goals are to recommend a curriculum that addresses each of the following items:

1. Incorporate more evidence-based and case-based learning methods throughout the curriculum to promote critical thinking and to further integrate the biomedical, oral clinical and behavioral sciences, including aspects of cultural diversity and in providing a humanistic care environment.
2. Exposure of students to earlier clinical experiences.
3. Decrease student passive learning by incorporating principles of adult learning, promote group collaborative interactions and provide more time during daily scheduled hours for students to explore additional areas of inquiry through research, clinical electives, tracks in advanced education and combined degree programs.
4. Evaluate our current methods of assessment throughout the curriculum to enhance emphasis on:
 - a) learning and retention of knowledge
 - b) comprehensive patient care
 - c) professionalism and ethics
5. Assess components of the APGD clinic that contribute to higher student engagement and productivity for implementation into student clinics.
6. Look into ways to enhance clinical rotations for a more direct student involvement in diagnosis, treatment planning, delivery and evaluation of patient care.
7. Increase authentic interprofessional education into the curriculum.
8. Make recommendations for associated faculty development to acquire skills to better utilize existing and new technologies and alternative teaching methods to enhance active learning.

PROPOSED CHANGES TO ADDRESS GOALS

1. Goal: Incorporate more evidence-based and case-based learning methods throughout the curriculum to promote critical thinking and to further integrate the biomedical, oral clinical and behavioral sciences, including aspects of cultural diversity and in providing a humanistic care environment.

1.a. Restructuring and integration of courses and contents.

A primary aim in restructuring didactic and preclinical courses and their contents is to provide a curriculum that best develops a student's ability to think critically and to treat a patient comprehensively, taking into account all aspects of a patient's medical, psychosocial, economic and cultural conditions, and with an understanding of the basic biomedical aspects of the presenting pathologies. We propose a curriculum that includes earlier student clinical experiences starting in semester 1 that coincides with the integration and progressive presentation of biomedical sciences via an organ systems approach throughout semesters 1-9. Contents from current courses are integrated into larger courses that blend biomedical, behavioral and oral clinical sciences. Interjected into the course contents can be material framed within appropriate clinical topics and/or by incorporating clinically relevant cases in case-based lessons. This overall structure is designed to make the basic sciences more relevant to students in practicing clinical dentistry. A secondary consequence of this integration is to promote interactions of faculty members from a broader mix of departments and divisions to reduce and more consistently self-check for redundancies in the curriculum that are the result of individual units not being aware of what is presented in the variety of other small courses. Reduction of redundancies is expected to reduce some of the current faculty efforts in delivering contents. Management of the sequencing of curricular contents will also be more consistent with integrated courses.

Accompanying this document is an Excel file with a tab for each semester of the revised curriculum. Courses within each semester are listed and include course content materials to be covered as well as total contact time that should be devoted to the course. The times are based on current lecture/lab/exam hours devoted to presenting the included topics after exclusion of redundant material across courses. Also included is a list of faculty members that have presented similar course contents previously.

The new Dental Medicine course contents are to be presented in a manner that integrates the biology, biochemistry, physiology, pathology and histology of the relevant organ systems. Moreover, faculty of the Dental Medicine courses and faculty associated with pre-clinical/clinical courses are encouraged to work together to use a single case to present and highlight different aspects of a case relevant to their course (including SIM labs). Potential case-based topics that could be developed over time are provided in the excel file, but are only suggestions. Cases can be presented and discussed in either small group or large group formats using one of many different active learning methods. Cases should emphasize a patient's presenting pathology and the associated biomedical mechanisms, the development of a treatment plan, the implementation of that plan, and aspects of cultural diversity and a humanistic environment. As students advance through the curriculum, cases should be progressively more complex.

1.b. Student portfolios.

Students are to develop a portfolio throughout the curriculum to include documentation of a subset of a student's clinical cases. During the initial semesters, such cases will pertain to those in which the student assists an upper level student in the clinic or interactions with patients during service associated with the Interdisciplinary Service Learning course. As a student advances in the curriculum their interactions with patients will increase in frequency and in complexity. As a result, requirements for case write-ups are to become more complex and complete with respect to patient-based comprehensive care. Templates are to be developed to guide students in case documentation, reasoning of decisions along with cited evidence from the scientific literature. Components to consider for templates include documentation of medical history, basic physical exam results, head, neck and oral exam results, diagnosis, risk assessment, treatment plan with appropriate options, plan for prevention and patient management that considers patient preferences. Also included would be illustration of the basic biomedical science aspects of the pathologies presented in the case and a complete analysis of systemic medical conditions and the pharmacology pertaining to possible oral implications. Further items to address include: a) the patient's culture and compliance issues and how these affected treatment; b) motivational drivers used for the patient; and c) divergence from the original treatment plan and the reasons for change (e.g., psychosocial, missed a problem, incorrect diagnosis, poor communication with patient). Portfolios would also include required reflection papers that focus on ethical issues, either within a student's own clinical experiences or from cases provided by the American College of Dentists.

The purpose of case write-ups is part of the early and continuing indoctrination of students to examine their interactions with patients in the context of patient-based comprehensive care. Just as important, the National Board exam is increasing in emphasis on the case-based format with integration of clinical and basic sciences. Providing students with early clinical experiences and demanding thoughtful and complete case write-ups would be part of their preparation for the Board exam.

During semesters 6-8 students are to add to their portfolio completed cases from their patient pool. The case numbers and types are to be determined, although it is recommended that one of the cases include a medically complex patient. Five case-types are suggested and include: 1) Prevention and treatment of simple dental diseases/direct restorative cases; 2) Indirect restorative cases (less than 3 units); 3) Indirect restorative cases (3 to 7 units); 4) Partially edentulous cases; 5) Complete edentulous cases. Documentation includes risk assessment, diagnosis and prevention. Also to be included in the student's portfolio is a review of their patient charts to calculate and document their completion rate among assigned patients, their total monetary production and treatment outcomes. A reflective paper on one of the cases provided by the American College of Dentists half-day seminar covering several new ethical dilemmas is also to be included. An ethical issue encountered by

the student in the clinic and the reasoning for decisions made may also be included. During semesters 9-11, students are to add additional completed cases to their portfolio, plus completion rate among assigned patients, total monetary production, treatment outcomes and a reflective paper on an ethical dilemma in the clinic.

1.c. Incorporation of treatment planning lessons and case presentations in TEAM Clinics.

Because much of the didactic and pre-clinical curricular contents are presented during semesters 1-5, students will have less formal coursework in semesters 6-9. This provides the opportunity to incorporate a 30-60 min session before the start of most TEAM morning clinic sessions for lessons on treatment planning and for student case presentations. Lessons on treatment planning will be especially constructive for students entering the TEAM clinic with their own patient pool in semester 6. These changes may necessitate a reevaluation and changes in the clinic scheduling.

In case presentations students must address the patient's culture and show how this affects treatment, describe motivational drivers used for the patient, and defend their treatment plan decisions. Students are to analyze how the treatment diverged from the original treatment plan, and if so, identify the associated problem (e.g., psychosocial, missed a problem, incorrect Dx, poor communication with patient). The cases must have complete analysis of systemic medical conditions and pharmacology pertaining to possible oral implications. The literature review must justify treatment decisions, including materials used. These case presentations are to be in addition to those required for a student's portfolio. It is anticipated that each student will present at least one case each semester. Attendance to presentations is mandatory.

1.d. College-wide case presentations.

A new component to the curriculum is college-wide case presentations in which faculty residents and/or senior students present completed cases for discussion. It is important for faculty to play a role in presentations, either as the sole presenter or in conjunction with a resident or senior student. Case presentations by experienced faculty or residents are a valuable teaching tool to emphasize to all students (D1-D4) critical thinking, evidence-based reasoning and the integration of systemic health concerns in patient-based comprehensive care. Students in the earlier stages of the curriculum will experience examples of what they should aspire to for their own presentations and to the thinking processes inherent in treatment planning. A college-wide template for case presentations with clear standards should be implemented for faculty, residents and students to follow. Included in the template are the basic biomedical science aspects of the pathologies presented in a case, thus representing a learning tool for faculty as well as students. Questions regarding when in the day (e.g., morning, lunch time, late afternoon), time allotment (e.g., 60, 90, 120 min), how often (e.g., weekly, monthly, quarterly), the selection process of presenters and the presentation template remain to be determined. It is recommended that a workgroup be developed to address these matters.

2. Goal: Exposure of students to earlier clinical experiences.

Listed in semesters 1-5 of the accompanying excel file are student clinical experiences. These experiences are designed to give students early contact with patients in the clinic, mostly in the role of assisting upper level students. The progression of early student experiences coincide with that of the didactic and pre-clinical courses, helping students to better appreciate and understand the clinical relevance of curricular contents related to the biomedical sciences. Early contact with patients will further benefit students to develop communication skills and to understand they are professionals, and as such will be held to professional standards. Students will also be better prepared to hit the ground running when entering the clinic in semester 6. Because of earlier clinical experiences, it is anticipated that juniors during semesters 6-8 will progress more rapidly in their clinical training.

3. Goal: Decrease student passive learning by incorporating principles of adult learning, promote group collaborative interactions and provide more time during daily scheduled hours for students to explore additional areas of inquiry through research, clinical electives, tracks in advanced education and combined degree programs.

Incorporating principles of adult learning allow students to play a more responsible and active role in their learning, recognizing students need to incorporate and develop these skills throughout their careers. Also, in promoting group collaborative interactions between students in the active learning process, we recognize that group practices and interprofessional collaborations will likely increase in the future. Incorporation of various instructional methods, including lectures, are expected to be used to present course contents, and together will help to accommodate the different learning styles of students within a class. By incorporating different active learning methods students will be more accountable for their own learning, including fact-finding, evaluation of the evidence and synthesizing the relevant information into appropriate evidence-based plans of action; attributes they will need to acquire in a rapidly changing dental profession. Active learning methods include case-based learning, team-based learning, assigned reading, assigned group projects/problems, or other methods where students to apply course contents learned outside of class.

As mentioned above, the attached excel file lists the total contact time that should be devoted to each course. The times are based on current lecture/lab/exam hours devoted to presenting the included topics after exclusion of redundant material across courses. The elimination of redundancies combined with the integration of courses and distribution of basic science contents throughout the curriculum allows for reducing decreasing student time in the classroom to no more than 5-6 hours per day on average. The decrease in average contact time is expected to allow time for research, prepare portfolios, clinical electives, tracks in advanced education, combined degree programs or for individual/group studying. It is anticipated that over the first few years of the revised curriculum faculty may be able to progressively reduce student in-class times as they become more acquainted with and incorporate appropriate active learning instructional methodologies that require less classroom time.

4. Goal: Evaluate our current methods of assessment throughout the curriculum to enhance emphasis on: a) learning and retention of knowledge, b) comprehensive patient care, c) professionalism and ethics.

4.a. Assessment of learning and retention of knowledge.

Pass/Fail grading: Much discussion was focused on the issue of Pass/Fail grading as a means to de-emphasize student obsession with grades. While consensus was not reached, a majority of members favored the pass/fail system. The reasoning behind moving to the pass/fail system is because there is extremely little distinction between students with respect to grade point averages. Students at the upper levels of the grading scale are separated by as little as 0.001 grade points. Nevertheless, an important component of the learning process is to provide students with feedback of their performances on course examinations, papers or presentations, either as letter grades, percentages or written evaluations. In going to a pass/fail system consideration must therefore be given to developing mechanisms for formative feedback to students of their progress within courses (e.g., establish a grading scheme within each course for tests and etc., but to award a P or E grade for the course). Additionally, a student's achievements throughout the curriculum other than a GPA will need to be communicated to other entities outside the DMD program (e.g., residency directors, scholarship and award programs). One mechanism discussed by the committee is for each course, a student would receive a P or E grade and the course director would then submit to the Education office a student's course rank. Rankings could be within broad groups, such as quartiles or thirds (e.g., top third, middle third and bottom third). Course rankings would be weighted based on course credit and weighted scores accumulated to derive a class ranking within the broad groups at the end of each year. Students would be able to request to have their course or class rank released to them at any time. It is worthwhile to devote additional discussion of this topic across a broader range of the faculty. It is thus recommended that a workgroup be formed to address this issue.

Student portfolios: Creation of meaningful portfolios requires faculty evaluation and feedback. Evaluations of portfolios may be part of an existing course (e.g., Professionalism In Patient Care and Practice Management) or as a separate course. Evaluation would occur each semester and/or at each of the critical assessments (discussed below). Significant weight would be given to portfolios in grading and in critical assessments.

Critical Assessments: As a student progresses through the curriculum he/she is to undergo critical evaluations at three time points (semesters 2 or 3, 5 and 8). Critical evaluations are designed to promote student retention and integration of curricular contents as they advance from DN1 to DN4 students. These evaluations also allow charting of a student's overall progress, to offer constructive feedback and, if necessary, to fail a student with the subsequent consideration of remediation, re-tracking or dismissal.

Semester 2 or 3 assessment: There are two views by the committee on the first assessment. One view is to formally test students near the end of semester 2 as a means to identify those students struggling with one or more aspects of the curriculum. Students will have had experiences in patient interviewing with consideration of cultural, economic and social issues, basic radiology and introduction to image interpretation, alginate impressions, neurophysiology and pain control, periodontology and caries treatment planning, basic oral surgery and local anesthesia, basic endodontics, and simple direct restorations. Students will also have had early exposure to clinical experiences in the TEAMS clinic with basic medical, head and neck and intraoral exams.

The alternate view is designed primarily as a means to identify those students struggling with one or more aspects of the curriculum over the first 3 semesters and to offer them assistance, but without a formal test. There are two means to implement this assessment. First, using our current system, students that fail a course will automatically be interviewed by SPEC and an action plan developed, if deemed necessary. Second, student rankings within each course during semesters 1-3 will be surveyed by the Office of Education to identify students that pass their courses but are struggling as determined by consistently being ranked in the bottom tier of many courses. These students will be interviewed by the Office of Education to help identify areas for improvement and to offer assistance, such as assessment of study skills, tutoring, etc. As with the first and subsequent two critical assessments it is recommended that one or more faculty workgroups be assembled to make final recommendations.

Semester 5 assessment: Over semesters 4 and 5, students will have had basic physiology, histology pathology, pharmacology and immunology, all with respect to oral epithelia, bone, pulmonary, cardiovascular, renal, liver, GI, hypersensitivity, salivary glands and autoimmune diseases. Included will be clinical findings, physical evaluations and lab findings, dental complications and risk assessments, and medical emergencies. Other courses and clinical exposures in the TEAM clinic while assisting DN3 students will focus on periodontal treatment planning and surgery, endodontic therapy, clinical diagnosis and treatment planning, advanced oral surgery, advanced aspects of occlusion, dental materials, indirect restorations and removable partial dentures.

Students must pass the assessment at the end of semester 5 before they acquire their own patient family in semester 6. The assessment is made up of two independent parts. First, is a test of psychomotor skills, similar to our current clinical exam 1. This exam is to be graded separately as pass/fail and as its own separate course. Appropriate constructive feedback is to be given to those students that pass but demonstrate a need for minor improvement.

Second, students are to be tested orally for their ability to integrate the curricular content to-date, with an emphasis on critical thinking in relation to appropriate aspects of patient interactions associated with communication (including psychosocial, economic and cultural considerations), examination, diagnosis, and professionalism. Assessment includes the student's ability to take into consideration a patient's medical

condition and its influence on treatment planning and treatment outcomes of simple cases, and an understanding of the patient's medical and oral pathologies at the level of current basic biomedical science knowledge. The oral examination also is to be graded separately as pass/fail and as its own separate course.

The oral examination is to be mostly case-based. Cases within the student's portfolio may function as the basis for questions during the oral examination. It is also recommended that a database of de-identified and partly fictional cases be developed to use in questioning and assessing a student's critical thinking in relation to appropriate aspects of patient examination, diagnosis, treatment planning of simple cases, treatment outcomes, management and professionalism. This oral exam will help to prepare students for the next oral evaluation at the end of semester 8.

Assessment of a student's oral examination is to be conducted by a faculty panel made up of basic science and clinical faculty. It is estimated that five panels, each composed of three faculty members, can conduct five exams of 1 hour each in an afternoon from 1-6 pm. All students in a class could then be examined over a four-day period. Each 1-hour period would include 15-20 min to preview the portfolio, 20-30 min for the oral exam and the remaining time to deliberate and come to agreement on a pass/fail grade. Appropriate constructive feedback is to be given to those students that pass but demonstrate a need for improvement.

Semester 8 assessment: Students will have completed 3 semesters in the TEAM clinics, plus a limited amount of additional didactic material and some intramural and extramural rotations. This oral examination also is to be graded separately as pass/fail and as its own separate course. Each student presents one or two of the five cases in their portfolio to a faculty panel. The following aspects of each case presentation are evaluated by the faculty panel: Medical history/pharmacology implications, caries and periodontal risk assessments and prevention plan, validity of treatment options, alternative treatments and critical thinking involved, sequencing of treatment plan, determination that the disease entities were actually treated and the risk level for further disease, appropriate maintenance plan for optimal oral health, post-treatment assessment. A case-based database could also be used in the examination in lieu of a case from the portfolio. Questioned that may be posed to a student include: How were the diagnoses reached? What treatment options were considered and why this option? What changed during the treatment and how did you cope/make appropriate alterations in the treatment plan? Can you explain the biological mechanisms associated with the disease process and your treatment strategy? What was the outcome? How did the restorative dentistry turn out? What did you learn? Was the patient happy or what were their concerns? What factors limited your potential treatment strategies? TEAM leaders are to have input in this critical assessment, possibly thorough filling out an assessment rubric for each student with the opportunity for comments. Also to be evaluated are items in the student's portfolio, including their completion rate among assigned patients, their total monetary production, treatment outcomes and reflective papers on ethical issues. Portfolios are to be evaluated for student progress at the ends of semesters 6 and 7, with full assessment and grading near the end of semester 8. Students that pass are released to proceed to their final year with less intense oversight by faculty who know their strengths and weaknesses.

Oral examinations are to be conducted by a faculty panel made up of basic science and clinical faculty in a process similar to that for the semester 5 assessment, except each 1-hour period would include about 45 min for the student presentation and questioning and the remaining 15 min for panel deliberation.

4.b. Comprehensive patient care and assessment of students in the clinic.

Currently, to assess students in the clinic we require completion of a specific number of individual clinical departmental competencies, units and RVU's within a given period of time. As a result, students are motivated towards completion of procedures rather than focusing on comprehensive care of the patient. Another unintended consequence of our current system is the switching of patients between multiple students in order for each to complete required competencies and procedures. Nevertheless, a subset of students graduate without achieving all of the procedural goals we require. The Committee's recommendation is to transition from the current procedure-based clinical training to patient-based comprehensive care. Documented evidence

to transition to this system comes from experiences at Harvard. The patient-based comprehensive care model at Harvard has reportedly increased their student case completion rate nearly two-fold, decreased incomplete cases by more than half and reduced patient transfers by more than 3.5-fold (S. E. Park et al., J Dent Educ 75(11):1411-1416, 2011). Below are their five classifications of cases and the required numbers of cases needed to pass and to further achieve an honors designation.

Harvard Case Classification

Harvard Case Types

- 1 Preventive therapies, simple operative procedures, prophylaxis, and scaling and root planing
- 2 Interdisciplinary management (endodontics, periodontal surgery, oral surgery, etc.) and complex restorative procedures, not including prosthodontic treatment
- 3 Interdisciplinary management and restorative procedures, including prosthodontic treatment (fewer than three fixed prosthodontic units)
- 4 Complex interdisciplinary management (four or more disciplines) and restorative procedures including prosthodontic treatment (three or more fixed prosthodontic units) or difficult patient management
- 5 Removable partial dentures (metal and resin) Complete dentures, immediate complete dentures, overdentures, and implant supported overdentures

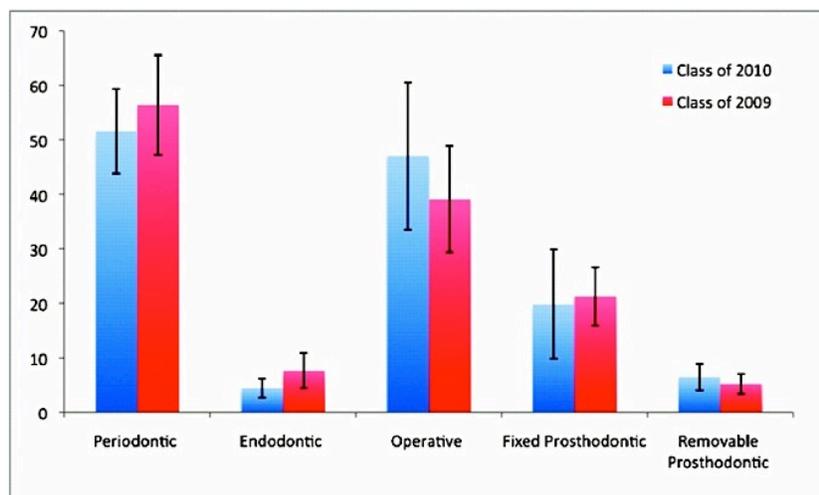
Composition and numbers of cases for passing and for honors at Harvard

Pass: 15 cases: Maximum of seven cases consisting of Type 1 and 2 cases Minimum of four Type 3 and 4 cases (one of which must be Type 4) Minimum of four Type 5 and 6 cases (must consist of both types)

Honors: 20 cases: Maximum of nine cases consisting of Type 1 and 2 cases Minimum of six Type 3 and 4 cases (two of which must be Type 4) Minimum of five Type 5 and 6 cases (must consist of both types)

A subsequent report indicated that the new model had little impact on the numbers of the different clinical procedures performed in each discipline by students on-site (S. E. Park et al., J Dent Educ 76(5):602-608, 2012). Not considered in the study were procedures conducted during off-site rotations for three or more months in the senior year. Single-canal endodontic procedures were equivalent between the two groups,

Procedures performed by major disciplines prior to (Class of 2009) and after (Class of 2010) introduction of the Case Completion Curriculum.



whereas fewer multi-canal procedures were performed. A caveat is that the data for the class of 2009 was incomplete. A significant feature of providing the “Honors” grade was to motivate students to complete a greater number of cases (i.e., 22.8 versus 12.8 cases on average).

We therefore recommend clinical departments move towards a case completion model as the major method for global assessment of clinical competency and readiness for graduation. Determination of the number and types of completed cases required of students in years DN3 and DN4 will need to be determined. Minimal numbers of the types of patients treated to completion required for graduation will need to be developed by departments and an opportunity to earn an Honors designation should also be strongly considered. Assessments of specific clinical skills still have a place in the DMD curriculum, but we would anticipate that they would be fewer in number than in the current curriculum.

In transitioning to a case completion model we further recommend the following changes:

- Team Leaders or another designated faculty member conduct a comprehensive review of every case completion before entering it into Axium.
- IT develop tools for faculty to easily view a student’s total clinical experiences.
- Move to a single assessment system in Axium so that every department has the same assessment tools.

Units and RVUs: Going to a patient-based comprehensive care model, units and RVUs may be eliminated. Evidence indicates that high repetition of clinical procedures does not correlate to clinical competence (M. Spector et al., J Dent Educ 72(12):1465-1471, 2008). Our system of individual departmental clinical competencies will be maintained but are to be renamed to “skills assessments” to be more explicit and to reduce confusion with the core competencies required by CODA that are incorporated into the UFCOD’s twenty “Competencies For The New Dental Graduate”. Each skills assessment is to have a specified level of quality commensurate or better than that required for the Board exam, and will take into consideration the professionalism and the speed with which the student performs the procedure, given their stage in the curriculum (e.g., DN2, DN3 and DN4). Quality is to be emphasized during the preclinical and early clinical phases of the curriculum with additional emphasis on speed during the senior year. By removing procedural quantity requirements, students may concentrate more on the quality of the treatment/procedure. This is especially true with beginning clinical students who need time to develop quality with the oversight and mentoring of faculty that will hold them to a specific standard. Once students enter their senior year they will require less oversight and can focus even more on comprehensive patient care and productivity.

Daily grades: Currently, students are given daily grades for clinical procedures, infection control, professionalism, etc. This necessitates faculty entering multiple sets of scores into Axium for each student they oversee in the clinic. A common complaint is that the last 30 min of clinic is characterized by students waiting for faculty to grade them and by faculty trying to rapidly enter all the data. The result is that faculty, when under pressure, rarely enter low scores. What is the purpose of this process other than only to provide each student with a grade? Faculty interactions with students should be: 1) to offer students appropriate and timely feedback on their work, with suggestions for improvement; 2) to challenge the critical thinking of students in treatment planning and in carrying out procedures; and 3) to identify inappropriate conduct related to professionalism, patient care and patient management. The first two items do not require a daily assessment, but are instead critical parts of the progressive learning process of students during consistent mentoring by faculty. If we create a system in which student understand that they must obtain clinical procedural skills of high quality to pass required skills assessments, they will strive to look for constructive criticism of their work and be motivated to improve and ask for opinions of their work. Clinical faculty would therefore spend more time as mentors to students, providing encouragement and immediate constructive feedback of their work. Critical thinking is an important component of the learning process and faculty should spend more time challenging students in the clinic to help them develop their critical think skills. There will be opportunities in

the curriculum to provide formal assessments of a student's critical thinking, such as during case presentations, reviews of portfolios and during critical assessments.

4.c. Assessment of professionalism and ethics.

It is extremely important to recognize and adjust inappropriate professional and ethical student behavior throughout the curriculum, in all courses and in clinics. Oversight would be under the Professionalism In Patient Care and Practice Management course series, but there is the expectation that all faculty members will be diligent in reporting non-professional behavior. Because of the early student clinical experiences, this course series would start in semester 1 and would harbor all items related to a broad interpretation of student professional behavior. The goal is to immediately indoctrinate students that they are professionals and are to conduct themselves accordingly at all times. Inappropriate conduct associated with any course, whether clinical, pre-clinical or didactic, will be reported to the Office of Clinical Affairs. In the clinic, faculty enter into Axium items that need immediate attention and correction. Such items include a student's preparedness, patient and time management, psychomotor ability, infection control, patient communication and whether a student comes to clinic without understanding the appropriate rationale for treatments of scheduled patients. Student absence or tardiness would also be denoted, such as when a student leaves the clinic early when he/she could have assisted another student or seen an emergency patient, or when a student consistently is late for clinic. Items entered into Axium along with comments are to generate a daily report for TEAM leaders for consideration of appropriate corrective action. Each time non-professional behavior is noted a student would receive one or more demerits based on the seriousness of the infraction. A workgroup should be organized to determine the specific items to note, the associated demerits, the total demerits within a semester that would trigger a failing grade and the reporting structure for non-clinical courses.

Training in ethics and its assessment is currently present in many courses. An introduction to ethics is currently presented in DEN5013, "Foundations of Professionalism" and in the revised curriculum is to be as presented in semester 1 in an integrated course, "Professionalism, Patient Care and Assessment". In DEN5010, "Interdisciplinary Service Learning", one of the learning objectives is to "demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices". And in the subsequent course, DEN6011, "students are to recognize ethical dilemmas one faces as a dental health professional". Ethical patient management is presented in DEN7016, "Professionalism In Patient Care and Practice Management II" and in DEN8018, PPCPM IV, students are to identify and write a paper on an ethical dilemma they confronted during care a patient. Training in ethics would be further emphasized in the portfolios, described above, as reflective papers.

5. Goal: Assess components of the APGD clinic that contribute to higher student engagement and productivity for implementation into student clinics.

As mentioned above, during the last three semesters students will have less intense oversight by faculty who know their strengths and weaknesses, resulting in faculty focusing more on junior students. In addition, lower level students will be able to provide assistance to upper level students in the TEAM clinic. The combination of greater focus by faculty and technical assistance are attributes of the APGD clinic considered important factors contributing to the higher productivity of students.

A question that arose in discussions is whether grouping juniors and seniors into separate clinics is possible, as this would allow direct allocation of more faculty coverage to juniors than to seniors. Moreover, DN1's could be paired with seniors who could play more of a mentoring role. Furthermore, DN2 students during semesters 4 and 5 will have had significant previous clinical experiences and will be able to provide more substantial assistance to DN3 students during semesters 7 and 8 in the TEAM clinic. This question should be addressed by a faculty workgroup.

By transitioning to a patient-based comprehensive care model and implementation of an “Honors” system at UFCOD, we anticipate increased productivity in the student clinics. Additional motivation to increase student productivity may be to offer diploma designations of “Clinical Honors” and “High Clinical Honors”, based on a given set of criteria comprised of grades, performance during case presentations and on recommendations from faculty to a review panel, similar to our current Research and Research High Honors designation and review process.

Another motivational factor to increase student productivity is to have students chart their monetary production and collections and to enter this information into their portfolio. TEAM leaders would also have access to this information. Students at the low-end of production and without any extenuating circumstances (e.g., external rotation or sickness) would be targeted for a personal interview with their TEAM leader. The purpose of the interview is to identify current hindrances to productivity and to consider ways to alleviate these hindrances and to increase a student’s productivity. This process will thus flag students that, among other issues, may be slow in their procedures or have problems with patient communications resulting in no-shows. By openly charting monetary production by distinct TEAMS we would stimulate a friendly competition with recognition to the winning TEAM. Another concept that we considered is to establish individual student monetary productivity goals. A problem with setting such goals is that upon reaching their goal the above-average student will have no motivation to continue.

Other changes in the TEAM clinic that are highly recommended to increase student productivity include:

- All faculty in the TEAM clinic (i.e., perio, prosth, operative and TEAM Leaders) should be calibrated to mentor students in all aspects of general dentistry in order to increase the efficiency of faculty coverage and mentoring of students in the clinic.
- All student treatment plans are presented to the Team leader or other designated faculty member for formal approval before presenting the plan to the patient. In treatment planning, students must consider the patient’s systemic health, current therapeutic and non-therapeutic drugs and all other aspects of risk assessment.
- Principles regarding production, collections, patient scheduling, and efficiency strategies should be topics for discussion. Tabulation and reviews of production, expenditures, collections and overall income for each team and clinic should be discussed at regular intervals. These exercises would also help students to understand principles of practice management.

6. Goal: Look into ways to enhance clinical rotations for a more direct student involvement in diagnosis, treatment planning, delivery and evaluation of patient care.

Intramural and extramural rotations provide students with valuable learning experiences and should continue to be part of the predoctoral dental curriculum. The curriculum committee just recently undertook a review of both internal and external rotations. The revision committee therefore will concede to recommendations of the curriculum committee. Nevertheless, methods of assessment for internal and external rotations should be reevaluated by a workgroup in the context of emphasizing comprehensive patient care, as well as converting to a pass/fail system.

7. Goal: Increase authentic interprofessional education into the curriculum.

Interprofessional education is already being implemented into the curriculum. This Spring semester we saw a joint program between DN1 students and first year medical students devoted to early childhood caries. There are also discussions underway to have third year medical students gain experience in the oral surgery clinic and for DN3 students during semesters 7 or 8 to spend a half-day in a Shands-UF family medicine clinic. Students would participate in history taking, physical examination, diagnosis and treatment planning of patients.

Students would be given a course assignment related to putative treatment planning of one or more of the observed patients if presented with a specific oral pathology. Incorporation of additional interprofessional experiences by students continues to be an on-going of the Office of Education. Faculty or student suggestions for potential experiences are welcome.

8. Goal: Make recommendations for associated faculty development to acquire skills to better utilize existing and new technologies and alternative teaching methods to enhance active learning.

Discussed above was the incorporation of various active-learning instructional methods to present selected course contents. With active learning methods students are more accountable for their own learning. Plans are underway to provide multiple opportunities in the form of workshops. For example, on May 10, Dr. Linda Behar-Horenstein will present a workshop on “Developing Effective Active Learning In Your Course” with a subsequent workshop on May 31, entitled “Test Construction Considerations in Your Course”. These workshops will be presented again and will also be available via mediasite. Additional mediasite demonstrations will include methods used currently by COD faculty. Current and emerging computer programs to assist instructors in delivering course contents and in assessments will also be presented in workshops and/or on mediasite. Faculty within the college and support staff in the Office of Education will be available to assist faculty in transitioning components of course contents to one or more active learning methods. As part of a HERSA grant awarded to Dr. Catalanotto and Dr. Behar-Horenstein, ten faculty members recently underwent training in small-group case-based learning and are working in pairs to develop 5 cases for incorporation into existing courses. This Fall another 12 faculty members will undergo similar training and develop six new cases.

REQUIREMENTS FOR IMPLEMENTATION OF THE PROPOSED REVISED CURRICULUM

Below are bullet points delineating resources and institutional decisions required to implement the proposed curriculum.

- Coordination among basic science faculty from COD and COM with COD clinical faculty to reorganize lectures from two or more courses to remove redundancies and over time to gradually insert clinically relevant material and cases that include aspects of cultural diversity and a humanistic environment.
- Scheduling of case presentations in TEAM clinics, development of presentation templates and an associated grading rubric.
- Scheduling of college-wide case presentations, time allotment, and frequency. Development of a template for presentations and for selection of presenters.
- Determination of appropriate clinical experiences, their organization into clinical instructional units, and coordination with TEAM clinic activities.
- Determination of clinical supervision of students and assessment methods.
- Faculty development in instructional methods and course design.
- Resources for incorporation of small-group case-based lessons as a component of integrated courses are encouraged, but alternative active learning methods can also be used to present cases that accentuate critical thinking.
- Development of: i) portfolio requirements, ii) templates for case write-ups, iii) an evaluation process, and iv) a pool of faculty to assess portfolios.
- Development of appropriate rubrics to identify critical errors and standardize faculty panels in critical assessments.
- Faculty (clinical and basic science) identified to organize, to evaluate, and to provide feedback to students in critical assessments.
- Faculty resources are required to determine and provide remediation to low-achieving students in critical assessments.

- Departments negotiate appropriate patient case types to be treated to completion.
- Design of mechanisms to monitor student case loads, distribution of case types and solutions for when appropriate cases are not available.
- Develop a method to recognize and adjust inappropriate professional and ethical student behavior throughout the curriculum, in all courses and in clinics.
- Development of new strategies for faculty coverage in the clinics, including addressing the question of separate clinics for juniors and seniors.
- Determination of case completion types and numbers for an “Honors” designation.
- Determination of requirements for offer diploma designations of “Clinical Honors” and “High Clinical Honors”.
- Development of a mechanism to chart monetary production in the TEAM clinics.
- Development of additional course materials as part of the TEAMS program regarding production, collections, patient scheduling, and efficiency strategies.
- Identification of appropriate experiences and to develop instructional materials appropriate for students from participating in interprofessional learning programs and to solve the multiple conflicting logistical challenges inherent in interdisciplinary experiences.

CURRICULUM REVISION STEERING COMMITTEE: SUMMARY REPORT

A primary aim of the proposed DMD curriculum revision is to provide a contemporary dental education that best develops a student's ability to act professionally, think critically and treat patients comprehensively in a continuously changing environment.

DRIVERS OF DMD CURRICULUM CHANGE

Internal Drivers:

- DMD daily schedule overscheduled with little time for study, reflection or elective learning.
- DMD curriculum dominated by passive lectures with little active learning.
- Basic biomedical sciences concentrated in first and second years, leading to poor retention and little integration of biomedical sciences into clinical education.
- Numbers-driven clinical expectations focuses students on completion of procedures rather than comprehensive patient care.

External Drivers:

- Future changes in the profession will require dentists to integrate, adapt and apply their knowledge to complex and often unanticipated challenges throughout their careers.
- Commission on Dental Accreditation (CODA) Accreditation Standards have changed, including a focus on critical thinking, evidence-based information in clinical patient care, humanistic environment, and cultural competency.
- National Board Dental Examination will transition to a single integrated exam. Schools will be given 4 years advance notice. Students will need to retain and apply foundational knowledge to clinical patient care on this examination later in the curriculum.

REVISION GOALS

1. Incorporate more evidence-based and case-based learning methods throughout the curriculum to promote critical thinking and to further integrate the biomedical, oral clinical and behavioral sciences, including aspects of cultural diversity and in providing a humanistic care environment.
2. Exposure of students to earlier clinical experiences.
3. Decrease student passive learning by incorporating principles of adult learning, promote group collaborative interactions and provide more time during daily scheduled hours for students to explore additional areas of inquiry through research, clinical electives, tracks in advanced education and combined degree programs.
4. Evaluate our current methods of assessment throughout the curriculum to enhance emphasis on:
 - a) learning and retention of knowledge
 - b) comprehensive patient care
 - c) professionalism and ethics
5. Assess components of the APGD clinic that contribute to higher student engagement and productivity for implementation into student clinics.
6. Look into ways to enhance clinical rotations for a more direct student involvement in diagnosis, treatment planning, delivery and evaluation of patient care.
7. Increase authentic interprofessional education into the curriculum.
8. Make recommendations for associated faculty development to acquire skills to better utilize existing and new technologies and alternative teaching methods to enhance active learning.

SOME THOUGHTS ON IMPLEMENTATION OF THE PROPOSED CURRICULUM

Implementation of a revised curriculum is expected to occur over an extended period of time, likely 3 to 4 years, as students advance from freshman to seniors. It will require a number of important changes in clinical assessment (i.e., focus on comprehensive patient care) and in the distribution and presentation of course contents throughout the curriculum. A vital change is the progressive presentation of biomedical sciences via an organ systems approach throughout semesters 1-9, in a manner that integrates the biomedical, behavioral and oral clinical sciences. Furthermore, the development of a student's clinical skills (psychomotor, diagnostic and treatment planning) is to coincide with the didactic curriculum. The collective changes proposed are designed to promote the assimilation and integration of didactic material within the context of clinical practice by consistently challenging the critical thinking of students. Key to challenging students is to incorporate into the curriculum comprehensive case-based lessons that use methods of adult learning, and by demanding students rationalize decisions based on the best available evidence from systematic research. Accompanying this document is an Excel file with a tab for each semester of the revised curriculum. Courses within each semester are listed and include course content materials to be covered as well as total contact time that should be devoted to the course. Also included is a list of faculty members that have presented similar course contents previously.

Some changes may be implemented sooner than others. For example, some of the alterations in clinical assessments, as well as the institution of college-wide case-based presentations may be more readily assimilated into the current curriculum. Note, already underway are changes in the semester 5 clinical exam that are in-line with the proposed revision. Some changes will necessarily need to be implemented sooner than later. This is especially true for reorganization of didactic courses. Keep in mind that we currently teach all of the contents proposed in the revised plan. The major threshold to overcome is the rearranging of contents into new courses while reducing redundancies. In the revised plan, the time allotments for courses are based on current lecture/lab/exam hours that are devoted to course topics. Total in-class time for students each semester is reduced by decreasing redundant material across courses, and by distributing the biomedical sciences throughout semesters 1-9. It is therefore anticipated that lectures will initially remain a primary method to deliver didactic material until faculty become more acquainted with different methods of active learning and begin to incorporate these instructional methodologies into their courses. Presently, an increasing number of faculty members are experimenting with different active learning strategies in courses, or are learning about active learning methods through faculty development initiatives.

KEY POINTS OF THE PROPOSED CURRICULUM ASSOCIATED WITH EACH GOAL

Goal 1: Incorporate more evidence-based and case-based learning methods throughout the curriculum to promote critical thinking and to further integrate the biomedical, oral clinical and behavioral sciences, including aspects of cultural diversity and in providing a humanistic care environment.

- Contents of didactic and preclinical courses are integrated into larger courses that present biomedical sciences via an organ systems approach throughout semesters 1-9 that blend the biomedical, behavioral and oral clinical sciences. This overall structure is designed to make the basic sciences more relevant to students in practicing clinical dentistry.
- Clinical topics and/or case-based lessons are used to introduce and accentuate key concepts.
- Integration helps to reduce and to consistently check for redundancies in the curriculum, and sequencing of curricular contents.
- Students develop portfolios to document and reflect on all aspects of key cases (basic science, clinical, cultural, etc.) that include evidence cited from the scientific literature. Reflection papers that focus on ethical issues are also included.
- Incorporation of treatment planning lessons and case presentations in TEAM Clinics.
- College-wide case presentations as a teaching tool to emphasize to all students critical thinking, evidence-based reasoning and the integration of systemic health concerns in patient-based comprehensive care.

Implementation requires:

- Coordination among basic science faculty from COD and COM with COD clinical faculty to reorganize lectures from two or more courses to remove redundancies and over time to gradually insert clinically relevant material and cases that include aspects of cultural diversity and a humanistic environment.
- Determination of templates and contents for portfolios.
- Resources for and development of a review and grading structure for portfolios.
- Scheduling of case presentations in TEAM clinics, development of presentation templates and grading rubric.
- Scheduling of college-wide case presentations, time allotment, and frequency. Development of a template for presentations and for selection of presenters.

Goal 2: Exposure of students to earlier clinical experiences.

- Students have clinical experiences throughout semesters 1-5 that coincide with didactic and pre-clinical courses.
- Clinical experiences gradually increase in complexity as students gain clinical skills.
- Juniors therefore expected to progress more rapidly in their clinical training.
- Recommended experiences listed in excel file course contents accompanying the committee's report.

Implementation requires:

- Determination of appropriate clinical experiences, their organization into clinical instructional units, and coordination with TEAM clinic activities.
- Determination of clinical supervision of students and assessment methods.

Goal 3: Decrease student passive learning by incorporating principles of adult learning, promote group collaborative interactions and provide more time during daily scheduled hours for students to explore additional areas of inquiry through research, clinical electives, tracks in advanced education and combined degree programs.

- In the integration of curricular contents from didactic and preclinical courses into larger courses, redundancies are reduced. Also, biomedical sciences are distributed throughout the curriculum to collectively decrease student time in the classroom to 5-6 hours per day on average.
- Faculty are encouraged (i.e., by development programs and changes being made by their peers) to progressively incorporate active learning methods in presenting appropriate course contents.
- Some active learning methods may allow further reduction in class contact time.
- Decreased daily scheduled hours allow students to explore additional areas of inquiry or for collaborative group interactions.

Implementation requires:

- Coordination among basic science faculty from COD and COM with COD clinical faculty to reorganize lectures from two or more courses to remove redundancies, as in goal 1.
- Faculty development in instructional methods and course design (Goal 8)
- Resources for incorporation of small-group case-based lessons as a component of integrated courses are encouraged, but alternative active learning methods can also be used to present cases that accentuate critical thinking.

Goal 4: Evaluate our current methods of assessment throughout the curriculum to enhance emphasis on: a) learning and retention of knowledge, b) comprehensive patient care, and c) professionalism and ethics.

4.a. Assessment of learning and retention of knowledge.

- Consider pass/fail grading for course grades, as there is little distinction between students with respect to grade point averages. A mechanism must still provide students with feedback of their performances within courses and also to convey a student's achievements throughout the curriculum to entities outside the DMD program (e.g., residency directors, scholarship and award programs). It is recommended that a workgroup be formed to address this issue.
- It is recommended that students develop a portfolio throughout the curriculum to include reflection papers, student clinical cases, treatment outcomes and measures of clinical productivity. Templates should be developed for these portfolio elements. Meaningful portfolio creation requires faculty evaluation and feedback. Evaluation could occur each semester and/or at each of the critical assessments.
- Critical Assessments: As a student progresses through the curriculum he/she is to undergo critical evaluations at three time points (semesters 2 or 3, 5 and 8). Critical evaluations are designed to promote student retention and integration of curricular contents as they advance from DN1 to DN4 students. These evaluations also allow charting of a student's overall progress, to offer constructive feedback and, if necessary, to fail a student with the subsequent consideration of remediation, re-tracking or dismissal.
 - Semester 2 or 3 assessment: Formal testing of students near the end of semester 2 of all curricular contents exposed to to-date is seen as one means to identify those students struggling with one or more aspects of the curriculum. An alternative view of the committee is to identify those students struggling with one or more aspects of the curriculum over the first 3 semesters and to offer them assistance, but without a formal test. Students would be identified by more oversight in monitoring student progress by the Office of Education.
 - Semester 5 assessment: Required prior to patient assignment. The assessment is two independent parts: a psychomotor skills test and an oral exam. The oral portion would be a case-based exam before a faculty panel covering the content to-date, emphasizing critical thinking, communication (including psychosocial, economic and cultural considerations), examination, diagnosis, professionalism and treatment planning
 - Semester 8 assessment: Required prior to earning less clinical supervision in the senior year. Each student will present cases selected from their portfolio to a faculty panel. Present: medical history/pharmacology implications, caries and periodontal risk assessments and prevention plan, validity of treatment options, alternative treatments and critical thinking involved, sequencing of treatment plan, determination that the disease entities were actually treated and the risk level for further disease, appropriate maintenance plan for optimal oral health, post-treatment assessment.

4.b. Comprehensive patient care and assessment of students in the clinic.

- We recommend clinical departments move towards a case completion model for global assessment of clinical competency and readiness for graduation. (S. E. Park et al., J Dent Educ 75(11):1411-1416, 2011).
- Departments to determine standards for the types of patients to be treated, the numbers of each patient type minimally required and the numbers needed to earn an Honors designation. This assessment model would replace existing minimal numbers of departmental, units, procedures and RVU's.
- Clinical skills assessments still have a place in the DMD curriculum, but we would anticipate that they would be fewer in number than in the current curriculum.
- Eliminate daily grades. Instead, use a demerit system in an expanded professionalism course to denote inappropriate student conduct, either in performance of patient care or in professional behavior.

4.c. Assessment of professionalism and ethics.

- Professionalism: A method to recognize and adjust inappropriate professional and ethical student behavior in all courses and in clinics should be developed, as these qualities are paramount in a clinical practitioner. We recommend that the current ethics and professionalism curriculum and evaluation

process be expanded to include all semester of the dental curriculum. A workgroup should be formed to address this issue.

- Training in ethics and its assessment is currently present in many courses, but would be further emphasized in student portfolios.

Implementation requires:

- Development of: i) portfolio requirements, ii) templates for case write-ups, iii) an evaluation process, and iv) a pool of faculty to assess portfolios.
- Development of appropriate rubrics to identify critical errors and standardize faculty panels in critical assessments.
- Faculty (clinical and basic science) to organize, to evaluate, and to provide feedback to students in critical assessments.
- Faculty resources to determine and provide remediation to low-achieving students in critical assessments.
- Departments negotiate appropriate patient case types to be treated to completion.
- Design of mechanisms to monitor student case loads, distribution of case types and solutions for when appropriate cases are not available.
- Develop a method to recognize and adjust inappropriate professional and ethical student behavior throughout the curriculum, in all courses and in clinics.

Goal 5: Assess components of the APGD clinic that contribute to higher student engagement and productivity for implementation into student clinics.

- During the last three semesters students will have less intense oversight by faculty who know their strengths and weaknesses, resulting in faculty focusing more on junior students. In addition, lower level students will be able to provide assistance to upper level students in the TEAM clinic. The combination of greater focus by faculty and technical assistance are attributes of the APGD clinic considered important factors contributing to the higher productivity of students.
- A faculty workgroup should be formed to address whether grouping juniors and seniors into separate clinics is possible to allow direct allocation of more faculty coverage to juniors than to seniors.
- Transitioning to a patient-based comprehensive care model and implementation of an “Honors” system (for a high level of case completions) is expected to increase productivity in the student clinics. Additional motivation to consider is to offer diploma designations of “Clinical Honors” and “High Clinical Honors”.
- Students should chart their monetary production and collections and to enter this information into their portfolio. Students at the low-end of production and without any extenuating circumstances (e.g., external rotation or sickness) would be targeted for a personal interview with their TEAM leader identify ways increase productivity.
- Openly charting monetary production by distinct TEAMS may stimulate a friendly competition with recognition to the winning TEAM.
- Other changes in the TEAM clinic that are highly recommended to increase student productivity include:
 - All faculty in the TEAM clinic (i.e., perio, prosth, operative and TEAM Leaders) should be calibrated to mentor students in all aspects of general dentistry in order to increase the efficiency of faculty coverage and mentoring of students in the clinic.
 - All student treatment plans are presented to the Team leader or other designated faculty member for formal approval before presenting the plan to the patient.
 - Principles regarding production, collections, patient scheduling, and efficiency strategies should be topics for discussion. Tabulation and reviews of production, expenditures, collections and overall income for each team and clinic should be discussed at regular intervals to help students to understand principles of practice management.

Implementation requires:

- Development of new strategies for faculty coverage in the clinics, including addressing the question of separate clinics for juniors and seniors.
- Determination of case completion types and numbers for an “Honors” designation.
- Determination of requirements for offer diploma designations of “Clinical Honors” and “High Clinical Honors”.
- Development of a mechanism to chart monetary production.
- Development of additional course materials regarding production, collections, patient scheduling, and efficiency strategies.

Goal 6: Look into ways to enhance clinical rotations for a more direct student involvement in diagnosis, treatment planning, delivery and evaluation of patient care.

- Intramural and extramural rotations provide students with valuable learning experiences and should continue to be part of the predoctoral dental curriculum. The curriculum committee just recently undertook a review of both internal and external rotations. The revision committee therefore will concede to recommendations of the curriculum committee. Nevertheless, methods of assessment for internal and external rotations should be reevaluated by a workgroup in the context of emphasizing comprehensive patient care, as well as converting to a pass/fail system.

Goal 7: Increase authentic interprofessional education into the curriculum.

- Revised CODA Accreditation standards require dental schools to provide for interprofessional experiences for their dental students. Discussions underway to have third year medical students gain experience in the oral surgery clinic and for 3 DN students to rotate through a Shands-UF family medicine clinic

Implementation requires:

- Identification of appropriate experiences and to develop instructional materials appropriate for students from participating colleges and to solve the multiple conflicting logistical challenges inherent in interdisciplinary experiences.

Goal 8: Make recommendations for associated faculty development to acquire skills to better utilize existing and new technologies and alternative teaching methods to enhance active learning.

- Plans are underway to provide multiple opportunities in the form of workshops. For example, on May 10, Dr. Linda Behar-Horenstein will present a workshop on “Developing Effective Active Learning In Your Course” with a subsequent workshop on May 31, entitled “Test Construction Considerations in Your Course”. These workshops will be presented again and will also be available via mediasite. Additional mediasite demonstrations will include methods used currently by COD faculty. Current and emerging computer programs to assist instructors in delivering course contents and in assessments will also be presented in workshops and/or on mediasite. Faculty within the college and support staff in the Office of Education will be available to assist faculty in transitioning components of course contents to one or more active learning methods. As part of a HERSA grant awarded to Dr. Catalanotto and Dr. Behar-Horenstein, ten faculty members recently underwent training in small-group case-based learning and are working in pairs to develop 5 cases for incorporation into existing courses. This Fall another 12 faculty members will undergo similar training and develop six new cases.

Curriculum Committee DMD Rotation Form

Rotation Director and CC Member please each complete this form.

Rotation Title: **Oral Oncology**

Course number: **8767L** Rotation Director completing form: **Dr. Sandow**

Description of Rotation:

- When does rotation occur in curriculum?
May to May (Senior Year)
- Length of Rotation
Three half days
- How many times does an individual repeat the rotation?
**½ in the Oral Medicine Clinic specifically with Dr. Sandow.
2 ½ days at Shands Head and Neck Tumor Conference**
- Describe any other required DMD rotations in your discipline. **none**
- What are the rotation's educational goals and objectives?
To enhance the student's ability to prevent and/or diagnose and manage oral complications from cancer therapy. Students will gain experience in obtaining comprehensive medical and dental histories from patients with life-threatening diseases. Intraoral and extraoral examinations, interpretation of hospital records, and diagnostic tests will be performed to assess the impact of cancer on the delivery of dental care. Students will educate patients in effective oral hygiene methods and preventive strategies to reduce the risk of caries, mucosal infections, and other complications of head and neck radiation and chemotherapy.

Attendance at two Shands Head and Neck Tumor Conferences will provide students with additional experience in recognizing neoplastic disease processes. The Conference will enhance the student's understanding of appropriate use of surgery, radiation therapy, and chemotherapy in the treatment of H&N cancer.

By utilizing the medical model for education, Oral Oncology clinical experiences will contribute to the following competencies:

- 1. Read in detail and synthesize the content in the "Oral Health and Cancer Therapy" manual (in the Document Section) as foundation knowledge for the rotation and to pass the final examination.**
- 2. Thoroughly and accurately evaluate complex medical/dental histories.**
- 3. Provide differential diagnoses of oral hard and soft tissue abnormalities associated with cancer and cancer therapy.**
- 4. Assist in the prevention of oral disease processes and complications from cancer therapy through patient education.**

Assist in the treatment of conditions associated with cancer therapy including: caries, candidiasis, bacterial infections, oral manifestations of chronic graft vs. host disease, osteoradionecrosis, etc.

Methods of Evaluation

- How are students' achievement of the educational goals and objectives evaluated?
One written examination on course material and no evaluation on the rotation.
- This **rotation certifies** which of the UFCD 20 Competencies?
 - **20.:** Manage oral mucosal and osseous diseases or disorders, including oral cancer.

Is this the only place that the students will observe oral cancer patients?

- This **rotation teaches towards** which of the UFCD 20 Competencies?
 - **Domain II:** Health Promotion and Maintenance - Educate patients and the community, based upon critical thinking and outcomes assessments, about the etiology of oral disease, promote preventive interventions and effectively work with patients to achieve and maintain a state of optimal oral health through evidence-based care.
 - **5.Assessment of Treatment Outcomes:** Analyze the outcomes of patient care and previous treatment to improve oral health through application of best practices.
 - **Domain III:** Health Assessment – Evaluate the patient's medical and oral condition and plan treatment needs.
 - **9.Examination of the Patient:** Perform a comprehensive patient evaluation that collects patient history including medication, chief complaint, biological, behavioral, cultural and socioeconomic information needed to assess the patient's medical, oral and extraoral conditions.
 - **10.Diagnosis:** Perform a differential, provisional, or definitive diagnosis by interpreting and correlating findings from the history and the patient interview, the clinical and radiographic examination, and other diagnostic tests and develop a problem list.
 - **11.Treatment Planning:** Develop properly sequenced, alternative treatment plans as appropriate to achieve patient satisfaction and that considers the patient's medical history and all the diagnostic data; to discuss the diagnosis and treatment options to obtain informed consent; and to modify the accepted plan based upon regular evaluation, unexpected situations, or special patient needs.
 - **12.Emergency Treatment:** Prevent, recognize and manage dental and medical emergencies in the office.
 - **Domain IV:** Health Rehabilitation – Perform procedures that manage oral diseases and restore the patient to optimal oral health.
 - **13.:** Prescribe and/or apply pharmacotherapeutic agents and monitor their effect on the patient's oral health.
 - **20.:** Manage oral mucosal and osseous diseases or disorders, including oral cancer.

- Could this rotation be shortened? What would be lost? What would be gained?
One tumor board conference could be eliminated. The reason there are two scheduled is to increase the opportunity to observe a head and neck cancer patient. Due to the nature of the disease, some cancers cannot be visualized. On the other hand, the time spent on the clinic rotation is critical due to the activities that are presented at each session. The students delivers fluoride trays, see the results of compliance or lack of compliance of oral hygiene in cancer patients. Additionally, the student experience first-hand in how to communicate with patients with cancer.
Does the rotation content overlap with other courses in the curriculum such that time could be used in other ways?
No

Summary: Rotation Strengths

Students enjoy the patient interactions and time in the clinic. They have an opportunity to observe a faculty treating patients; and learning how to deal with difficult situations.

Summary: Rotation Weaknesses

Sometimes, the conferences have no oral cancers to observe. The experience varies from week to week. Students may not appreciate the multidisciplinary interaction at this point in their education but will, when they are practicing dentists.

Recommendations

Could eliminate one of the cancer conferences.

One issue to mention is that toward the end of the senior year, students have to be doubled up to make sure they have a clinical experience. Additional students in the curriculum will increase this problem there is no other way to have this experience.

Curriculum Committee DMD Rotation Form

Rotation Director and CC Member please each complete this form.

Rotation Title: **Clinical Orthodontics**

Course number: **DN7819**

Rotation Director completing form: **Richard Donatelli**

Description of Rotation:

- When does rotation occur in curriculum? **The rotation is taken by half of the 3rd year dental students from August to December and the other half of the class from January to May.**
- Length of Rotation? **5 months for each half of the class**
- How many times does an individual repeat the rotation? **3 times for each student.**
- Describe any other required DMD rotations in your discipline. **N/A**
- What are the rotation's educational goals and objectives? **The educational goal of this course is to give the students the tools to a) analyze and plan mixed dentition space maintenance, b) recognize the need to refer complex malocclusion cases to a specialist in a timely manner, c) explain diagnosis to patient/parent in terms appropriate for a layperson, and d) explain case to a professional in appropriate terms.**
- **Methods of Evaluation**
- How are students' achievement of the educational goals and objectives evaluated? **Small group class participation involving questions and answers, observation of two specific orthodontic appointments, observation of an orthodontic resident case presentation, and three formal exams.**
- This **rotation certifies** which of the UFCD 20 Competencies? **Domain IV: Health Rehabilitation - Using universal infection control guidelines perform procedures that manage oral diseases and restore the patient to optimal oral health or refer appropriately.**
18. Diagnosis and manage limited developmental or acquired occlusal abnormalities.
- This **rotation teaches towards** which of the UFCD 20 Competencies?
Domain II: Health Promotion and Maintenance - Educate patients and the community, based upon critical thinking and outcomes assessments, about the etiology of oral disease, promote preventive interventions and effectively work with patients to achieve and maintain a state of optimal oral health through evidence-based care.
3. Communication and Interpersonal Skills Communicate effectively using behavioral principles and strategies with patients from diverse populations, applying cultural sensitivity.
4. Critical Thinking Apply scientific principles and clinical expertise to critically evaluate literature when making decisions in the diagnosis and treatment of patients.
7. Patient Management Apply behavioral and communicative management skills during the provision of patient care.
Domain III: Health Assessment - Recognize systemic diseases, substance and patient abuse and evaluate the patient's medical and oral condition and plan treatment needs.
9. Examination of the Patient Perform a comprehensive patient evaluation that collects patient history including medications, chief complaint(s), biological, behavioral, cultural and socioeconomic information needed to assess the patient's medical, oral and extraoral conditions

accordingly.

10. Diagnosis Perform a differential, provisional, or definitive diagnosis by interpreting and correlating findings from the patient history and interview, the clinical and radiographic examinations, and other diagnostic tests to accurately assess.

11. Treatment Planning Develop properly sequenced, alternative treatment plans as appropriate to achieve patient satisfaction and that considers the patient's medical history and all the diagnostic data; to discuss the diagnosis and treatment options to obtain informed consent; and to modify the accepted plan based upon regular evaluation, unexpected situations, or special patient needs.

Domain IV: Health Rehabilitation - Using universal infection control guidelines perform procedures that manage oral diseases and restore the patient to optimal oral health or refer appropriately.

18. Diagnosis and manage limited developmental or acquired occlusal abnormalities

- Could this rotation be shortened? What would be lost? What would be gained?

The current student seminar time commitment is about 8 hours. It could be shortened to six hours, fewer orthodontic cases would be analyzed using the Ackerman Proffit orthodontic exam and an adjunctive orthodontics seminar would be eliminated.

Does the rotation content overlap with other courses in the curriculum such that time could be used in other ways? Some of the adjunctive orthodontics seminar and some of the space management material could be presented in the orthodontic DN 7450 seminars.

Strengths: The course introduces the dental student to orthodontic records and diagnosis, adding a significant component to the relatively little orthodontic education in the four year dental school curriculum. Because of the small group setting, it encourages a teaching method that encourages immediate student feedback, more questions, and better teacher/student interaction.

Weaknesses: There are only three meetings for each student. This does not permit much development of material beyond an introductory level. Since the dental students have relatively little orthodontics in their curriculum and no very little clinical orthodontic exposure, the students do not have the fundamental orthodontic knowledge to develop more sophisticated or comprehensive orthodontic topics. Since the seminars average about 2.5 hours per session, the students lose focus and attention.

Recommendations: The class could be shortened to 2 hour seminars or broken into six 1 hour seminars. Students may gain additional ability to apply their orthodontic education if they were required to bring in an orthodontic record of their own in the form an Ackerman-Proffit exam, dental models, and photographs that they would take on a patient in their clinic. The records could then be diagnosed and discuss during the seminar time. This would make the class more clinically applicable.

Today's Date: 4/16/2013



Curriculum Committee DMD Rotation Form

Rotation Director and CC Member please each complete this form.

Rotation Title: Clinical Pediatric Dentistry I

Course number DEU 78254 Rotation Director completing form: Dr. Edna Perez

Description of Rotation:

- When does rotation occur in curriculum?
Fall 2012
- Length of Rotation
1 week
- How many times does an individual repeat the rotation?
Repeating, the course only occurs if remediation is needed
- Describe any other required DMD rotations in your discipline.
DEU 78264, DEU 88274, DEU 88284

- What are the rotation's educational goals and objectives?
To develop a general practitioner who is competent in providing basic oral health care to the child patient at the appropriate level and to certify readiness to begin independent practice

Methods of Evaluation

- How are students' achievement of the educational goals and objectives evaluated?
Attendance, Competencies, Quality of Performance, Professionalism, Patient management and Productivity
- This rotation certifies which of the UFCD 20 Competencies?
The rotation certifies the following competencies: 1, 3, 7, 14 and 16
- This rotation teaches towards which of the UFCD 20 Competencies?
The rotation teaches all the 20 competencies, except #6, 8 and 12
- Could this rotation be shortened? What would be lost? What would be gained?
It could be shortened. Clinical experience will be lost if the rotation is shortened

Does the rotation content overlap with other courses in the curriculum such that time could be used in other ways?

There is no overlap and the content of the rotation with the exception of some extracurricular rotations (it varies between students).

Today's Date: 4/16/13

Summary: Rotation Strengths

The students provide dental care to the pediatric dental patient.
The students don't have to manage their patients in terms of scheduling and collecting fees

Summary: Rotation Weaknesses

The students don't treat patients younger than 5 years old or with severe special health care needs.
It is a block rotation therefore the students don't benefit from the critique/evaluation of their prior dental work and they can't establish a long-term relationship with their patients

Recommendations

None at this time

Today's Date: 4/16/2013



Curriculum Committee DMD Rotation Form

Rotation Director and CC Member please each complete this form.

Rotation Title: Clinical Pediatric Dentistry 2

Course number: DEN 7826L Rotation Director completing form: Dr. Edna Perez

Description of Rotation:

- When does rotation occur in curriculum?
Spring 2013 - Summer 2013
- Length of Rotation
1 week
- How many times does an individual repeat the rotation?
None
- Describe any other required DMD rotations in your discipline.
DEN 7825L, DEN 8827L, DEN 8828L

- What are the rotation's educational goals and objectives?
To develop a general practitioner who is competent in providing basic oral health care to the child patient at the appropriate level and to understand conditions that require referral to a pediatric dental specialist.

Methods of Evaluation

- How are students' achievement of the educational goals and objectives evaluated?
The student evaluation is based upon attendance and participation.
- This rotation certifies which of the UFCD 20 Competencies?
The rotation doesn't certify the UFCD Competencies.
- This rotation teaches towards which of the UFCD 20 Competencies?
It teaches competencies 1 through 20.

- Could this rotation be shortened? What would be lost? What would be gained?
The rotation can be shortened. The experience of observing/assisting in different clinical environments at the pediatric residency will be lost.

Does the rotation content overlap with other courses in the curriculum such that time could be used in other ways?

There is no overlap with other courses.

Today's Date: 4/16/2013

Summary: Rotation Strengths

The students are exposed to advanced pediatric dental procedures that a general practitioner would not perform in their scope of practice (e.g. OR, Sedation, Infant Oral Health, and Dentistry on Adult Patients with disabilities)

Summary: Rotation Weaknesses

There are no guarantees that some scheduled patients during their rotation will come to the appointments (e.g. Sedation)

Recommendations

None at this time

Today's Date: 4/16/2013



Curriculum Committee DMD Rotation Form

Rotation Director and CC Member please each complete this form.

Rotation Title: Clinical Pediatric Dentistry 3

Course number DEU 827L Rotation Director completing form: Dr. Edna Perez

Description of Rotation:

- When does rotation occur in curriculum?
Summer 2013
- Length of Rotation
1 week
- How many times does an individual repeat the rotation?
Repeating the course only, occurs if remediation is needed
- Describe any other required DMD rotations in your discipline.
DEU 7825L, DEN 7826L, DEU 8828L
- What are the rotation's educational goals and objectives?
To develop a general practitioner who is competent in providing oral health care to the child patient at the appropriate level and to certify readiness to begin independent practice.

Methods of Evaluation

- How are students' achievement of the educational goals and objectives evaluated?
Attendance, Competencies, Quality of Performance, Professionalism, Patient Management and Productivity
- This rotation certifies which of the UFCD 20 Competencies?
The rotation certifies the following competencies: 3, 4, 5, 7, 13, 15, 16 and 19
- This rotation teaches towards which of the UFCD 20 Competencies?
The rotation teaches all the competencies except #6, 8 and 12
- Could this rotation be shortened? What would be lost? What would be gained?
It can't be shortened. Clinical experience will be lost if the rotation is shortened.

Does the rotation content overlap with other courses in the curriculum such that time could be used in other ways?

There is no overlap and the content of the rotation with the exception of some extracurricular rotations (it varies between students)

Today's Date: 4/16/13

Summary: Rotation Strengths

The students provide dental care to the pediatric dental patient.
The students don't have to manage their patients in terms of scheduling and collecting fees.

Summary: Rotation Weaknesses

The students don't treat patients younger than 5 years old or with severe special health care needs.
It is a block rotation therefore the students don't benefit from the critical evaluation of their prior dental work and they can't establish a long-term relationship with their patients.

Recommendations

None

Today's Date: 4/16/2013



Curriculum Committee DMD Rotation Form

Rotation Director and CC Member please each complete this form.

Rotation Title: Clinical Pediatric Dentistry 4

Course number: DEN 8828L Rotation Director completing form: Dr. Edna Pérez

Description of Rotation:

- When does rotation occur in curriculum?
Spring 2013
- Length of Rotation
January 12, 2013 to April 19, 2013 ^{SPC} 1 week
- How many times does an individual repeat the rotation?
Repeating the course only occurs if reevaluation is needed
- Describe any other required DMD rotations in your discipline.
DEN 7825L, DEN 8827L, DEN 7826L

- What are the rotation's educational goals and objectives?
To develop a general practitioner who is competent in providing basic oral health care to the child-patient at the appropriate level and to certify readiness to begin independent practice

Methods of Evaluation

- How are students' achievement of the educational goals and objectives evaluated?
Attendance, Competencies, Quality of Performance, Professionalism, Patient Management and Productivity
- This rotation certifies which of the UFCD 20 Competencies?
It certifies competencies 1 through 20, with the exception of competency #8, #12
- This rotation teaches towards which of the UFCD 20 Competencies?
It teaches competencies 1 through 20, with the exception of competency #8, #12
- Could this rotation be shortened? What would be lost? What would be gained?
It could be shortened
Clinical experience will be lost if the rotation is shortened

Does the rotation content overlap with other courses in the curriculum such that time could be used in other ways?

There is no overlap and the content of the rotation with the exception of some extramural rotations (it varies between students)

Today's Date: 4/16/2013

Summary: Rotation Strengths

The students provide dental care to the pediatric dental patient.
The students don't have to manage their patients in terms of scheduling and collecting fees.

Summary: Rotation Weaknesses

The students don't treat patients younger than 5 years old or with severe special health care needs.
It is a block rotation therefore the students don't benefit from the critique/evaluation of their prior dental work and they can't establish a long-term relationship with the patients.

Recommendations

None

Curriculum Committee DMD Rotation Form

Rotation Director and CC Member please each complete this form.

Rotation Title: **Orientation to the Endodontic Clinic**

Course number: **DEN 7735L** Rotation Director completing form: **Dr. Nair**

Description of Rotation:

- When does rotation occur in curriculum? During **Semester 6**
- Length of Rotation **2 half days**
- How many times does an individual repeat the rotation? **once**
- Describe any other required DMD rotations in your discipline. **None**
- What are the rotation's educational goals and objectives?
To accustom the students to the endodontic clinic prior to seeing their first patient in the next semester.

Methods of Evaluation

- How are students' achievement of the educational goals and objectives evaluated? **The students are required to show up for the rotation. They are not evaluated for these sessions**
- This **rotation certifies** which of the UFCD 20 Competencies? **The rotation does not certify any competencies**
- This **rotation teaches towards** which of the UFCD 20 Competencies? **Rotation teaches towards Competencies 3, 7, 9, and 10**
- Could this rotation be shortened? What would be lost? What would be gained? **The rotation can be shortened to one half day provided the students. The students may lose the opportunity to see different types of cases and their management. Repetition is helpful and it makes them more confident when they do their first case in the Endo clinic in the fall semester. The gain would be the time freed up**
- Does the rotation content overlap with other courses in the curriculum such that time could be used in other ways? **No, it does not.**

Summary: Rotation Strengths

The students are more familiar with the clinic and are more prepared to do their first case in Semester 7 after going through the rotation.

Summary: Rotation Weaknesses

The students cannot be tracked for optimum use of the time and quite a few times they may not get to assist in the predoctoral clinic due to lack of patients.

Recommendations

Students should be encouraged to assist in the clinics whenever they have free time to familiarize them to the clinic and procedures.

Could consider having the students rotate during semester 5

UFCD Intramural Rotations

Course	Department	Credits	Course Director	Reviewers
7762L	Radiology	1	Dr. Katkar	Dr. Sposetti
8765L		1		
7805L	Oral Surgery	2	Dr. Dennis	Dr. Harrison
8809L		2		
7825L	Pediatric Dentistry	1	Dr. Perez	Dr. Rey
7826L		1		
8827L		1		
8828L		1		
7819L	Orthodontics	1	Dr. Donatelli	Dr. Guelmann
7743L	Hospital Dentistry	1	Dr. Torres	Dr. Spencer
8767L	Oral Oncology	1	Dr. Sandow	Dr. Clark
8837L	Periodontology	(part of 3)	Dr. Harrison	Dr. El-Kerdani
7735L	Endodontics	2 half days	Dr. Nair	Dr. Clark

2012-2013 Curriculum Committee Charge

Strategic Actions	Timeline/Progress	Person Responsible
<p>1. Select an electronic platform to support the Department of Community Dentistry and Behavioral Sciences initial implementation of student assessment in professionalism and cultural competency across the curriculum.</p>	<p>Implemented Spring 2013/DEN 5221/CBDS</p>	<p>OOE</p>
<p>2. Complete the curriculum revision design resulting in a curriculum that more closely simulates general clinical practice, promotes active learning, is patient-centered, supports interdisciplinary professional education and provides for earlier clinical experiences.</p>		<p>Dr. Culp</p>
<p>3. Review revisions in the CODA Standards and update the UFCD Competencies Document while assisting the Restorative Dental Sciences Department in designing and executing a “completed cases” requirement model.</p>	<p>Curriculum Committee completed CODA review standards in 2011-2012 Charge. RDS under new leadership. Dr. Robinson and Dr. Sposetti to discuss further with Dean Dolan</p>	
<p>4. Collaborate with the Office of Clinical Affairs in evaluation of the APGD Clinic model and transfer innovations as appropriate to the DMD TEAM clinics.</p>	<p>A meeting is scheduled with Dr. Rey, Dr. Robinson, Richelle Janeic, Dr. Sposetti, G. Childs in February to determine these attributes.</p>	

<p>5. Collaborate with the Student Performance Evaluation Committee and the TEAM Program Director in reviewing processes and metrics which evaluate student's professionalism, cognitive, critical thinking and clinical skills.</p>	<p>An informal process has begun with the 3DN and 4DN class review with TEAM leaders and awarding of grades to DEN 7016, 7017, 8018. A February meeting is scheduled with Dr. Willis, Dr. Robinson, Richelle Janic and Dr. Sposetti to formalize the process.</p>	<p>Dr. Sposetti</p>
<p>6. Assist in the Commission on Dental Accreditation self-study beginning in 2013.</p>	<p>The Dean to assign which faculty member will lead this process.</p>	<p>Committee and OOE</p>
<p>7. Assist the Office of Education, the Office of Clinical Administration and the TEAM Program Director in the development of a Gainesville-based two year DMD program for international dentists.</p>	<p>The Dean and the Associate Dean for Education are reviewing this charge.</p>	<p>Dr. Sposetti</p>

<p>Ongoing Actions</p>		
<p>1. Implement the UFCD Curriculum Management Process and identify methods to further enhance the curriculum.</p>	<p>Ongoing</p>	<p>Committee and OOE</p>
<p>2. Assist the program coordinator in implementing a DMD/PhD track in the DMD curriculum.</p>	<p>Implemented Fall 2012. One student currently enrolled.</p>	<p>Dr. Culp</p>
<p>3. Produce an annual report of committee activities and accomplishments.</p>	<p>6/1/2013</p>	<p>G. Childs, Dr. Bhattacharyya</p>
<p>4. Monitor proposed centralization of educational technology and support with the HSC IT services and UF AT services.</p>	<p>Ongoing</p>	<p>OOE</p>

5. Recommend potential programs and retreats for consideration by the Faculty Development Committee.	Small Group Case Based Learning and Teaching Methods workshop scheduled for Spring 2013 Faculty Development Week and a Teaching Methods Workshop	
6. Refer all committee action items to the FAB on an ongoing basis for FAB review, discussion and subsequent action, as needed.	Mediasite and Podcasts	
Review of Outcome Measures		
D.M.D. students' first time pass rate on NBDE Parts I and II		
D.M.D. students' % pass rate on Florida licensure exam		
Proportion of classroom clock hours in evidence-based practice and critical thinking/active learning		
DMD student confidence in 20 clinical competencies upon graduation (senior survey).	Re-review data with Department Competency Process	
First time competency pass rate		
Student satisfaction (Senior Exit Interviews)		
Number of DMD students accepted/applied to advanced education programs		
Alumni periodic survey (2012-13)	The Dean and the Associate Dean for Education are reviewing this process and timeline.	Dr. Sposetti
Trends in number of students graduating with research honors		
Educational expenses and indebtedness for DMD students		

Completed

Not Yet Determined