

TEMPLATE for

Department Visits to the Curriculum Committee

Department - *Orthodontics*

Representatives - *John Neubert, Calogero Dolce*

1. Describe where student self-assessment and self-directed learning occurs in your departmental courses. Indicate how you evaluate and use the results of your evaluations to improve your courses?

Semester	Course #	Self-assessment or self-directed learning description	How are they reviewed?	How do you use the results to further enhance student learning?
Summer 3DN (6)	DEN7450C	Interactive laboratory sessions and homework assignments provide opportunities for students to evaluate and interpret findings and cases.	Cases and analyses are reviewed by the instructors	Consider development of more case-based learning modules
Summer/Fall 3DN (7-8)	DEN7819L	Cases posted in ECO for self-directed learning between sessions 1 and 2. The students need to do a standardized assessment that may lead to a more in depth investigation related to the assessment process (e.g., evaluation of cephalometric measures may lead to learning more about skeletal discrepancies).	Reviewed at session 2	Consider additional cases of varying complexity
Year long 3DN	DEN8290	Students encouraged to look up additional information relating to their experiences in treating orthodontic patients	Case discussion with course director	May select other patients with varying orthodontic complexity to be treated in this predoctoral clinic

2. Regarding the UFCD 20 competencies, indicate when they are assessed, which competencies are assessed, how they are assessed, how you evaluate the effectiveness of your methods and how you use that information to improve your courses.

(Examples of methods may include portions of MCQ exams, case-based written examinations, reflection papers, OSCE's, clinical patient care competencies, case presentations, etc.)

Semester	Course #	UFCD Competency#	Method(s) of competency evaluation	When and how are results reviewed?	How do you use the results to further enhance student learning?
Summer 3DN	DEN7819L	Domain II: 3, 4, 7 Domain III: 9, 10, 11 Domain IV: 18	3 case-based competency exams	Exams graded	Based on the responses, course time and effort will be adjusted to emphasize particular areas. There are 27 cases that are representative of the various malocclusions; therefore, they are not routinely updated.
Summer 3DN	DEN7450C	Domain II: 4, 7 Domain III: 10, 11 Domain IV: 17, 18	2 exams	Exams graded	We will modify based results of exams

3. Demonstrate alignment of your course objectives with your “certifying” competency assessments.

UFCD Competency#	Semester	Course #	Course Objective	Competency Assessment
From the syllabus, there are no “certifying” competencies for DEN7450C	6	DEN7450C	<p>I. Classification of Malocclusion</p> <ol style="list-style-type: none"> 1. Describe Angle Classification 2. Describe the Ackerman Proffit analysis 3. Describe the importance of CR,CO, Maximum intercuspation jaw positions <p>II. Biological Response of orthodontic tooth movement</p> <ol style="list-style-type: none"> 1. Describe the histological response in orthodontic tooth movement 2. Describe the craniofacial/dental response in orthodontic tooth movement <p>III. Growth of Craniofacial Skeleton</p> <ol style="list-style-type: none"> 1. Describe the changing concepts and hypotheses of craniofacial growth. 2. List the controlling factors in craniofacial growth 3. Describe regional development 4. Identify overall patterns of craniofacial growth 5. Describe racial and ethnic differences 6. Describe "adult" craniofacial growth <p>IV. Cephalometrics</p> <ol style="list-style-type: none"> 1. Provide an understanding of cephalometric landmarks, planes and lines 2. Describe the Steiner Cephalometric analysis 3. Describe how cephalometric interpretation is used to identify whether a problem is dental or skeletal <p>V. Dentition changes (from primary dentition to mixed dentition to permanent dentition)</p> <ol style="list-style-type: none"> 1. Describe the development of the dentition, eruption, jaw relationships, changes and problems related to dental transitions from, age 5 years to 12 years <p>VI. Transverse Treatment</p> <ol style="list-style-type: none"> 1. Describe various types of crossbites 2. Describe the effects 	N/A

			<p>of crossbite on facial growth □3. Describe appliances used to correct crossbites</p> <p>VII. Biomechanics and Fixed appliances □□1. List and describe five types of tooth movement □2. Explain in writing why light, continuous force is generally accepted as the appropriate force system in orthodontic treatment □3. Discuss anchorage control within defined biologic and biomechanical principles □4. Describe the major types of orthodontic appliances for the application of force □5. Describe and explain the components of the edgewise appliance. □□VIII. Horizontal treatment □□1. Describe reasons for initiating treatment in the primary and mixed dentition. □2. Describe typical anteroposterior (AP) skeletal problems in preadolescents □3. Discuss issues in deciding when to treat skeletal problems (e.g., timing) □4. Describe types of appliances used to modify growth in patients with mandibular deficiency, maxillary excess, maxillary deficiency, and mandibular excess. □□IX. Orthodontic Decision-Making/Class One Treatment □□1. Describe the steps in performing the Bolton's analysis □2. Describe the steps in performing the Moyer's analysis □3. Recognize the three categories into which all space management problems fall and differentiate among them: space maintenance, space regaining, and gross discrepancies (extraction) □4. Identify potential problems during diastema closure □5. Identify patients whose malocclusions may be treated by a general practitioner</p> <p>X. Vertical Treatment □□1. Describe various types of vertical problems (deep bite and open bite) □2. Recognize those conditions that should be treated in the primary and/or mixed dentition □3. Describe appliances used to correct vertical problems □3. Discuss how findings from other diagnostic aids (cephalometric analysis, occlusal relationships, and functional analysis) could modify</p>	
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			<p>treatment. □ □ XI. Comprehensive Orthodontic Treatment for Adolescents and Adults: an overview □ □ 1. Discuss when to start orthodontic treatment □ 2. Describe the three stages of orthodontic fixed appliance treatment: □ Alignment and leveling □ Molar correction and space closure □ Finishing □ 3. Discuss why separation is necessary before banding. □ 4. List the clinical steps involved in direct bonding of orthodontic brackets and explain the importance of correct execution of each step □ □ XII. Multidisciplinary Approach to Orthodontics: Prosthetics; perio; endo; adult adjunctive treatment; treatment possibilities and limitations □ □ 1. Discuss the indications of treating patient's in need of molar uprighting, extrusion, de-rotations and crossbites □ 2. Discuss the clinical management of a patient treated with fixed or removable or removable appliances (consider activation and anchorage) □ 3. Discuss management of missing, unerupted and supernumerary teeth</p> <p>XIII. Possibilities with clear aligner therapy (Invisalign) □ □ 1. Identify ideal case types for clear aligner therapy □ 2. Understand all aspects of the Invisalign process □ □ XIV. Orthognathic Surgery □ □ 1. Describe the indications for an orthognathic surgery approach to the correction of malocclusions. □ 2. Describe the orthodontic set up prior to surgery and the sequence of treatment steps. □ 3. Describe types of orthognathic surgical treatment plans for correction of the following malocclusions: Class II, Class III and anterior open bite □ □ XV. Retention and Stability □ □ 1. Discuss retention techniques and stability following adult tooth movement □ 2. Describe removable and fixed retainers</p>	
Domain IV: 18 Diagnose and manage limited developmental	7-8	DEN7819L	1. Prepare, attend and participate in three undergraduate conferences. □	3 competency exams – as denoted in the “Course Objective” column. An overall

or acquired occlusal abnormalities.			<p>2. Evaluate orthodontic records (<i>Competency 1</i>).</p> <p>3. Properly diagnosis and sequence limited orthodontic treatment plans relative to the general dentist (<i>Competency 3</i>).</p> <p>4. Develop the ability to communicate orthodontic concerns to patients and to dental colleagues (<i>Competency 3</i>).</p> <p>5. Critically assess orthodontic malocclusions and identify indications as to when to treat and when to refer to an orthodontic specialist (<i>Competency 2</i>).</p> <p>6. Successfully complete three orthodontic competencies with increasing complexity (<i>Competencies 1, 2, 3</i>).</p>	assessment is made by the course director.
		DEN8290		

4. Regarding the UFCD 20 competencies that your department certifies, for each competency, report student first time pass rate and end of semester pass rate for Spring and Summer 2013,

Semester	UFCD Competency#	%Class pass 1 st Attempt	%Class pass by end of course	%Class pass after remediation	Other
	Domain II: 4, 7 Domain III: 9, 10, 11 Domain IV: 18	100%	100%	N/A	Students must pass all 3 competencies and an overall assessment will be made at the end of 3 rd competency and remediated as needed. Remediation will consist of individually directed learning/review. This may include self-directed case workups and reviews with the Course Director.

5. Describe how the department uses student learning outcomes to improve the curriculum and student assessment using the Plan-Do-Check-Act (PDCA) cycle.
(The PDCA is referenced from the UFCD Strategic Plan and college's model for outcomes assessment and evaluation.

Sem	Course #	Student learning outcomes	Action Plan for changes to bring about improvements
6	DEN7450C	0% fail rate	Use student input on evaluations to modify interactive laboratory sessions as needed

7-8	DEN7819L	0% fail rate	1. Better records (photographs, radiographs) can be provided on ECO and on the exams. 2. Students will be encouraged to contact the Course Director to discuss treatment planning of cases.

6. Report any new or emerging technologies utilized in your curriculum.
(If implemented, how were students and faculty trained in the use of the new technology? If none implemented do you see any in the near future? Please describe.)

Semester	Course #	New or emerging technology	How did you evaluate the effectiveness of this change?	How did you use this evaluation to improve your curriculum?
	DEN7819L DEN7450C	Cone Beam Tomography (CBCT)	Discussion in seminars and lectures	We encourage the students to evaluate the CBCT images in the DEN7819L seminars.
	DEN7819L	Digital study models	Discussion in seminars	Propose to move the cast analysis lab session from DEN7450C to DEN7819L to provide hands on experience with digital cast analyses
	DEN7450C DEN8290	Invisalign	Students have a laboratory session where they gain hands on experience to start clear aligner therapy. Students earn Invisalign Certification at the completion of the course	Continued education of the students in the area of thermoplastic aligner therapy

7. Identify where and how evidence-based dentistry is included in your courses.
(In addition to the ECO teaching methods database report how (activities) support EBD and student use of EBD.)

Semester #	Course #	ECO teaching methods	Summary of Results	Use of Results
	DEN7819L DEN7450C	Lectures on orthodontic treatment and appliances are based on the	Exams	Diagnosis, treatment planning, and treatment

	DEN8290	current orthodontic literature. Where appropriate, references are cited in the lectures, either per slide or as a summary at the end of the lecture.		approaches structured from evidence-based practices. Use of case-based scenarios to reinforce these ideas.
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University of Florida College of Dentistry
Course Debriefing Summary
DEN 6407C, Preclinical Operative Dentistry II

December 2, 2013

Present: R. Lombardo, r. Rowell, C. Vu, K. Harper, E. Timofeev, J. Scott, N. Isaacs, S. Obeng, M. Onate, Dr. D. Dilbone, Dr. T. W. Willis, Dr. S. Geraldeli, Dr. V. Sposetti, G. Childs

Course evaluation: respondents -31, Mean range 1.8-3.0, overall score = 1.8

Debriefing Purpose: low evaluation overall score

Debriefing methodology: Ten students, which spanned the grading range of the course were selected.

Course Content

- Student commented the discriminative learning was beneficial.
- Some students felt there wasn't enough lecture time.
- The students felt lecture to lab time wasn't balanced. The lecture content was more aimed at functionality of the labs rather than reviewing the reading material.

Course Materials

- Summit textbook is a better book, helpful chapters of the book were made available to the students / Sturdivant - students had mixed feelings of which book they liked best
- The students said 70% of the exams came from the reading materials and only 30% from the lectures and labs, and since the readings lacked focus it made it very difficult to study for an exam. It was suggested to add objectives aligned with focused reading questions to aid in learning process.
- Many students felt it was difficult keeping up with the reading assignments.

Laboratory Sessions

- Students felt faculty availability wasn't evenly distributed, and would have liked a more even distribution of faculty time during lab sessions.
- Students felt there was very little feedback at the end of labs, and it was stressful being graded not knowing if the technique being learned was correctly executed.
- Students felt the labs assignments weren't structured.
- Students in general like the amount of sim lab time, but felt it wasn't enough to master the skills and to do them quickly.
- Students felt they were more prepared in how to hold a handpiece and composites.

Evaluation

- Knowing exam format would be helpful in directing studying techniques.

- Students didn't feel they received enough timely feedback (midterm grades were not posted for six weeks) to know if they were progressing in the course.
- Midterm Exam has 20 questions (16 short answer and 4 T/F, MCQ)
- Final Exam had 40 MCQ questions

General:

It was recognized that students were currently completing DEN 6408, Operative Dentistry III. They were asked if DEN 6407, Operative Dentistry effectively prepared them for this course. Students did not feel, at this point, that that it significantly impacted their ability to progress in DEN 6408.

Midterm Exam failures: 18

Final Exam Failures: 6

Final Psychomotor/Professionalism after one re-take examination <72%= 1

Final Written <72%= 4 (they were provided a re-take examination)

SPEC reported failures=1

Summary of Recommendations

- Keep discriminative learning.
- Provide excellent and poor examples of restoration preparations.
- To have more focused reading and lab assignments emphasizing important points.
- To be more explicit about exam format types.
- To have composite type forceps available for student use.
- Add an amalgam sequence video to the curriculum.
- Have more faculty in sim lab providing feedback for improvement.

Administrative Recommendations:

- The Department should re-assess their curricular content and psychomotor discrimination alignment, if performance in this single course is likely to lead to student dismissal after semester 3.
- The Department should explore use of technologies that could assist in providing student feedback.
- Assign a new course director and/or an additional faculty member to assist with organizational course needs.
- In the event the current course director is retained, the Department provides support for him to take the online, Teaching Today's Learner's Faculty Development courses, peer evaluation throughout the course and mentorship in writing assessment items.
- The Department should evaluate if the grade range of this course should be consistent with other Operative Dentistry courses and update accordingly and provide parity in written and psychomotor grade weights and re-take examinations.
- Develop a formal process for providing timely communication of student progress with faculty and students.

Class of 2014
Comparison of Student Benchtop Outcomes
on Mock Board and Florida Board Exam

DEN 8960L: Clinical Examination 2 (Mock Board Examination) Part I
October 2013

Endodontics

Total of 48 failures.

- 2 students failed #8 only.
- 40 students failed #14 only. *See note below
- 5 students failed both #8 and #14.
- 2 students who have a "0" for access on anterior started on the wrong teeth and were allowed to remediate during the mock board session. They successfully remediated #8, but have a fail grade for #14.

*Administrative Note: This was the first year we used the Accidental model and the primary issue was the access opening on tooth #14. Many of our students failed the mock board and this was not a problem previously with the other model for the access prep. The Accidental molar is much more constricted at the cervical portion than the previous model which resulted in the student's poor performance on the mock board.

Endodontics allowed the students to **retake** the exam after a one on one practice session. Only students who fail again would need to remediate.

All students remediated by December 12, 2013

Prosthodontics

Total of 25 failures

- 11 students have failed all preparations
- 6 students have failed the anterior crown preparation (# 9)
- 8 students have failed the bridge preparation (#3 to #5)

DEN 8960 -Clinical Exam II	# Students	Passed	Failed	Passed 1 st Remediation	Yet to complete	Passed 2 nd Remediation
2009	82	N/A	N/A	N/A		
2010	81	52	29	N/A		
2011	81	60	21	18		3
2012	84	25	59	49		10
2013	80	71	9	7	1	1
2014	81	56	25	16	9	

North East Regional Board of Dental Examiners
December 2013

Overall: 13 Students had failures (4 failed both Endo and Pros sections)

Endodontics

Total of 9 failures
5 had endo failures only

Prosthodontics

Total of 8 failures
4 has pros failures only