

Course Outcomes Assessment

Course/Program Title: DHY 204 Pain Management in Dental Hygiene Practice

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Expected Learning Outcomes:

- Prepare for the successful completion of the Commission on Dental Competency Assessments Examinations (CDCA) for certification in local anesthesia administration and nitrous oxide sedation monitoring.
- Assess patients' medical and pharmacologic histories to determine the suitability and proper selection of local anesthesia with or without vasoconstrictors.
- Describe and demonstrate the principles of local anesthetic administration and safety.

Assessment: (How do or will students demonstrate achievement of each outcome? Please attach a copy of your assessment electronically.)

1. Tests and lab competencies measure student performance for the expected learning outcomes.

3 Unit Exams (#1– 100pts; #2– 110pts; #3- 100pts)	310
Lecture Quizzes (4 @ 25 points each)	100
Homework (6 @ 10 points each)	60
Medical/Dental Emergency Case Scenarios (4 totaling 13 points)	13
Laboratory Skills Evaluations (3 totaling 53 points)	53
Clinical Competencies* (injections) (24 @ 6 points each)	144
<u>Engagement</u>	<u>70</u>
Total	751

Validation: (What methods have you used or will you use to validate your assessment?)

1. Students must successfully demonstrate skills learned in this course and receive a grade of 75% (C) or higher to progress in the Dental Hygiene Program

(85% (16/18) of students achieve an average of 75% or higher on all exams)

(90% (17/18) of students achieve an average of 85% or higher on the first two series of injection)

(90% (17/18) of students achieve an average of 95% or higher on the third series of injection)

2. Commission on Dental Competency Assessments (CDCA) Local Anesthesia Exam results & Commission on Dental Competency Assessments (CDCA) Local Anesthesia Exam results

3. Students are required to administer 4 injections in Clinic III and 8 injections in Clinic IV. Evaluations of student performance on clinic patients further validates the course requirements and design of DHY 204.

DHY-202 Clinic III and DHY-221: Students will demonstrate clinical skills under the direct observation of a clinical dental hygienist or dentist as stated in the Course Requirements. Skill Evaluations will be based on procedures learned in DHY 102, 111 and 204 and practiced in DHY 202. Students will be evaluated using the Skill Evaluation forms.

For each Clinical Skills Evaluation: 1. Each line item must receive a mark of Satisfactory “S”; 2. When an Unsatisfactory mark “U” is earned it must be removed by repeating the entire clinical skills evaluation, in order to earn credit for the clinical skills evaluation; 3. All Clinical Skills Evaluations must be completed with all “U’s” removed by the deadline.

Results: (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

1. Exam and Injections Skills Evaluation Results

Class of 2017 Results (n=20)	Validation Outcomes	Class Average
Exam #1	19/20 scored <75%	86.92%
Exam #2	20/20 scored <75%	99.4%
Exam #3	19/20 scored <75%	86.6%
1 st series of 8 injections	20/20 scored <95%	99.22%
2nd series of 8 injections	20/20 scored <95%	99.16%
3 rd series of 8 injections	20/20 scored <95%	100%
Final Course Grades	A-20 B-0	94.91%

Class of 2018 Results (n=18)	Validation Outcomes	Class Average
Exam #1	18/18 scored <75%	87.05%
Exam #2	17/18 scored <75%	86.82%
Exam #3	18/18 scored <75%	85.75%
1 st series of 8 injections	18/18 scored <95%	99.55%
2nd series of 8 injections	18/18 scored <95%	99.53%
3 rd series of 8 injections	18/18 scored <95%	100%
Final Course Grades	A-14 B-4	91.91%

2. CDCA Exam Results

Class of 2016 (n=17)	CDCA Local Anesthesia Exam	CDCA Nitrous Oxide Exam
Class of 2016** (n=17) Pass on 1 st attempt	17/17 (100%)	6/6 (100%)
Class of 2017** (n=20) Pass on 1 st attempt	18/18 (100%)	2/2 (100%)
Class of 2018** (n=18) Pass on 1 st attempt	6/6 (100%)	No results yet

**Testing for these two exams is an optional part of licensure, tests are usually taken between November and July for each cohort. Results will be included in graduate info Spring 2017.

3. DHY-202 Clinic III Fall 2017, 18/19 students successfully administered the required series of four injections with passing assessments. One student did not complete course requirements and has withdrawn from the program.

Follow-up: (How have you used or how will you use the data to improve student learning?)

The weight of the points for exams and quizzes was adjusted so that exams are weighted more heavily and final course grade inflation is reduced. Exam weight increased from 31.4% to 41.2% of the total course grade, while lab competencies decreased from 30.1% to 19.1%. Grade distribution improved from all A's with an average course grade of 94.91% to a mix of A's and B's with an average course grade of 91.01%, about a 3% decrease. Three out of the four clinical instructors were the same clinical faculty as last year; all four have taught this clinic in the past. A new dentist will need to be assigned to the clinical portion of this class, if not the lecture for next year as the current lead instructor plans to retire.

The current didactic coursework is preparing students to be successful in clinical administration of local anesthesia as well as passing licensure examinations. The clinical skills evaluations are preparing students to administer anesthesia in Clinics III and IV, success of this is reflected in student skill evaluations when giving injections to patients in clinic.

Budget Justification: (What resources are necessary to improve student learning?)

No additional financial resources are needed at this time.