

Program Outcomes Guide

Program Title: Dental Hygiene

Date: 5/7/18

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Expected Learning Outcomes (rev. 8/17):

1. Assess, plan, implement and evaluate patients of all age groups, that are medically compromised, have special needs and represent all case types.
2. Interact effectively with patients, peers and dental hygiene care members utilizing professional written and oral communications.
3. Develop an identity of self, supportive of continuous learning and professional endeavor.
4. Apply ethical, legal and regulatory concepts from the ADHA Code of Ethics and the State Dental Practice Act.
5. Initiate and assume responsibility for health promotion and disease prevention activities.
6. Acquire and synthesize information in a critical, scientific and effective manner.
7. Utilize technology effectively as it pertains to the delivery of patient care and practice management.

Assessment (How do or will students demonstrate achievement of each outcome?)

- **Program Completion:**
Successful completion of all 18 DHY program courses with a final course grade of 75% or better.
- Please see pages 6-10 for the Program Outcomes Assessment Methods. This table cross-references the detailed Course Objectives for each program course, which then make up the Student Learning Outcomes (COG's) for each course. The SLO's for all 18 program courses allow students to demonstrate competency for the Program Competencies, stated above as Program Outcomes. This level of detailed analysis is required by CODA in order to maintain accreditation and is being submitted as part of the POG.

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

- Program Completion:

Successful completion of all 18 DHY program courses with a final course grade of 75% or better, graduate with AAS in Dental Hygiene.

- Licensure Examination Scores:

Exam	Exam Type	Passing Score
National Dental Hygiene Board Exam (NBDHE)	National Computer-based exam (required for RDH licensure)	75%
Commission on Dental Competency Assessments Patient Exam (CDCA PTE)	Regional Clinical Exam (required for RDH licensure)	75%
Commission on Dental Competency Assessments Computer Simulated clinical Exam (CDCA CSCE)	Regional Computer-based exam (required for RDH licensure)	75%
Commission on Dental Competency Assessments Local Anesthesia Exam (CDCA LA)	Regional Computer-based exam (optional permit with RDH licensure)	75%
Commission on Dental Competency Assessments Nitrous Oxide Exam (CDCA N ₂ O)	Regional Computer-based exam (optional permit with RDH licensure)	75%

- State Licensure:

Program graduates must meet all state requirements and apply for licensure as a Registered Dental Hygienist (RDH) in each state they wish to practice.

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

- Program Completion:

Successful completion of all 18 DHY program courses with a final course grade of 75% or better, graduate with AAS in Dental Hygiene.

Graduation Year	Cohort Number	Retention & Completion Rates
Class of 2016	1 st class to complete and graduate from the program	17/20 (85%) graduated from the program May 2016.
Class of 2017	2 nd class to complete and graduate from the program	19/20 (95%) graduated from the program May 2017.
Class of 2018	3 rd class to complete and graduate from the program	18/20 (90%) graduated from the program May 2018.
Average program completion rate: 90%		

- Licensure Examination Scores:

Class of 2016 (first graduating cohort, N=17)					
Exam	# attempted - 1 st attempt	# passed- 1 st attempt	% pass rate -1 st attempt	# passed- 2nd attempt	End Pass Rate
NBDHE	17	17	100%	n/a	100%
CDCA PTE	17	16	94%	1/1	100%
CDCA CSCE	17	17	100%	n/a	100%
CDCA LA (optional)	17	17	100%	n/a	100%
CDCA N ₂ O (optional)	6	6	100%	n/a	100%

Class of 2017 (second graduating cohort, N=19)					
Exam	# attempted - 1 st attempt	# passed- 1 st attempt	% pass rate -1 st attempt	# passed- 2nd attempt	End Pass Rate
NBDHE	18	18	100%	n/a	100%
CDCA PTE	19	19	100%	n/a	100%
CDCA CSCE	19	19	100%	n/a	100%
CDCA LA (optional)	17	17	100%	n/a	100%
CDCA N ₂ O (optional)	2	2	100%	n/a	100%

Class of 2018 (third graduating cohort, N=18)*					
Exam	# attempted - 1 st attempt	# passed- 1 st attempt	% pass rate -1 st attempt	# passed- 2nd attempt	End Pass Rate
NBDHE				n/a	
CDCA PTE	18	17	94%	1 out of 1	100%
CDCA CSCE*	8	8	100%	n/a	
CDCA LA* (optional)	13	13	100%	n/a	
CDCA N ₂ O* (optional)	3	3	100%	n/a	

*At the time of this writing, results of licensure exams are not available.

- State Licensure:

Cohort	Licensure Results*
Class of 2016	17/17 (100%) graduates obtained licensure, in one or more states, as a Registered Dental Hygienist (RDH).
Class of 2017	18/19 (95%) graduates obtained licensure, in one or more states, as a Registered Dental Hygienist. One student did not sit for the NBDHE, therefore, it is not possible to be granted a license.
Class of 2018*	18/18 graduates plan to apply for licensure in at least 7 states.

*At the time of this writing, the licensure process for the graduates has not yet been completed.

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

- The data from the first 3 cohorts to complete the program suggests that the program is successful. The hard work of the faculty and staff have resulted in the program being able to meet student outcomes goals for retention, graduation and licensure of our students.
- The financial data after the completion 3 cohorts is beginning to reveal trends in clinic income versus supply and repair costs. The data in the table below should be used to improve accuracy in future budget planning. Averages after 3 cohorts have completed the program: **Average clinic income: \$38,883; Average supply and repair costs: \$33,808.**
- A second detailed budget analysis to follow the first one in 2015 would help solidify program expenses compared to income. During to 2017-18 academic year, the dental education clinic generated \$7,947.75 more revenue than was spent on supplies and equipment repair.
- Continued CODA accreditation: **The dental hygiene program earned full accreditation without reporting requirements on August 3, 2017.** The next site-visit will occur in 2022, the program coordinator should continue to align the dental hygiene program operations with current accreditation standards as they change over the next 5 years.
- The Dental Programs Advisory Board could benefit greatly from a re-organization with new members who are relevant to the purpose and regularly scheduled meetings that focus on the needs of the workforce and evaluation of the skills that graduates possess.
- An Employer Survey need to be created and implemented in a collaborative effort between the Program Coordinators and the PIE office. Goal: Use the information generated from the Graduate Survey to identify a list of employers that would be the survey population; work with PIE Office to implement
- The Dental Hygiene Program Handbook was revised during summer 2017 to more clearly state student expectations and align with College policies. This project was completed by the program coordinator and Drs. Ohl-Giglotti, Weaver and D'Ambrisi. Program policies, including the Professionalism Rubric, should be further refined so that the consequences for violations are clearly stated and enforceable. Currently the program struggles to be able to enforce consequences and sanctions for student violations of program policy. The should be addressed in order to improve the day to day efficiency of the program and decrease the amount of time faculty spend handling student issues.
- Student Learning Outcomes and Program Competencies: The Learning Outcomes listed on the Master Syllabus need to be reviewed to ensure they are measurable and descriptive of what the course is designed to accomplish. This is a major project that was identified Summer 2017 but was not started due to program manual revisions. Additionally, the 7 major program competencies and sub-competencies need to be evaluated and revised for accuracy. Revisions to the program competencies, outcomes and goals will better align SLOA, curriculum management and accreditation maintenance. The program coordinator hopes to make the current system of SLOA and CODA accreditation maintenance more streamlined to serve both purposes with one set of work.
- Course completion is reviewed at the end of every semester to insure any issues that are identified through data analysis are addressed immediately. Program completion is reviewed at the end of each year and changes will be made to address deficiencies.

- Grade distribution: Final course grade distribution continues to fall heavily in the A and B range. The program grade scale is currently 75%-79% =C, 80%-89%=B and 90%-100%=A. This is not an even distribution and is artificially inflating grades into the A and B range. The program grading scale should be evaluated and adjusted for a more even scale which would in turn create a more accurate grade distribution in a Bell Curve with A's, B's and C's.

Academic Year	# of Patient Encounters	Annual Change	Clinic Income	Supply and Repair Costs (July 1-June 30)	Difference
2014-15 (one cohort)	300	n/a	\$8,446.00	\$42,075.03	-\$33,629.03
2015-16	1514	+1214 patients	\$35,520.00	\$40,049.16	-\$4,529.16
2016-17	1894	+380 patients	\$42,279.00	\$30,473.54	+11,805.46
2017-18	1766	-128 patients	\$38,850.00	\$30,902.25	+7,947.75

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

- Continued Unit Budget Planning discussions to address long-term sustainability of the program and all required equipment and facilities.
- Planning for replacement of the 12 oldest dental units (#14-18) in the near future.
- Planning for replacement of Panoramic x-ray machine, to be decommissioned by manufacturer December 31, 2027.
- Planning for replacement of 2 Cavitron units and maintenance for 16 of the newer Cavitron units.
- Planning for replacement of the water distiller in the dental clinic. This is primarily used by dental programs students; however, it is also used by medical assisting and nursing staff.
- Continued funding of student worker position in order to maintain CODA compliance with standard 3 adequate support staff.
- Continued funding and renewal of Chesapeake Medical service and maintenance contract for x-ray equipment.
- Continued funding for Dentrix (electronic health records software) and TalEval (clinic grading software).
- Continued discussion regarding current liability insurance policies for the dental education clinic and a discussion about the program's dependency on adjunct faculty dentist credentials to maintain legal and CODA compliance.
- Annual payment of CODA dues to maintain accreditation.
- Continued funding for professional development activities for full-time faculty.
- Continue to support full-time and adjunct faculty staffing and Alternative Assignments for the program coordinator.
- Continued collaboration between the program and Adult Education and LSC staff to develop programs to better support the unique needs of English as a Second Language students in dental hygiene and other allied health programs.
- The advising position that is dedicated to health sciences and nursing is vital to managing the needs of prospective dental hygiene students. Although this advisor position has been

held my multiple people, a good working relationship between the program coordinator and the advisor is invaluable to support potential the dental hygiene program applicants.

Year	# Eligible applicants (% of total pool)	# Ineligible Applicants (% of total pool)	# Total DHY program applicants	Health Sciences Advisor in place
2014	31 (63%)	18 (37%)	49	Jeff Leister
2015	56 (61%)	36 (39%)	92	Vacant/Dan Saunders
2016	81 (61%)	51 (39%)	132	Dan Saunders
2017	76 (68%)	36 (32%)	112	Courtney Hart/vacant
2018	Scoring in progress	Scoring in progress	Scoring in progress	Vacant/Nancy Arnone

Program Outcomes Assessment Methods

Program Competency #1		
Assess, plan, implement and evaluate patients of all age groups, that are medically compromised, have special needs and represent all case types.		
Course Where Competency is Addressed	List Competency Measurement Methods	Corresponding Course Objectives
DHY 101 Dental Hygiene Theory I	Exams 1-3, Final exam, Workbook assignments	#1-12
DHY 102 Dental Hygiene Clinical II	Quiz 1-6, OSCE 1-3, Skill evaluations 1-16	#1-11
DHY 104 Dental Radiology	Didactic exams, paper, laboratory projects	#1-12
DHY 108 Head, Neck and Oral Anatomy	Lecture tests 1-9, lab quizzes 1-14, workbook assignments, Lab OSCE 1-4	#1-13
DHY 110 Dental Hygiene Theory II	Quiz 1-6, Homework 1-7, Final exam	#1, 2, 3, 4, 5, 6, 9
DHY 111 Dental Hygiene Clinical II	TalEval patient tracking system, process of care evaluations, Case presentations, skills evaluations, radiograph requirements & critiques	#1-10
DHY 112 Dental Materials and Procedures	Safety Quiz, Tests #1-4, Final, Skills Assessments #1-11, Homework #1-10	#1-10
DHY 113 General and Oral Pathology	Pathology Journal Project Tests 1,2,3,final, quizzes 1-10	#1-17
DHY 116 Dental Pharmacology	Tests 1-3, Drug Reference Notebook, Quizzes, Case Studies 1-3	#1-18
DHY 201 Dental Hygiene Theory III	Quiz 1-5, Test 1-4, Homework #1-6, Portfolio checks, Professional meeting reflection papers	#1-8, 10-12
DHY 202 Dental Hygiene Clinical III	TalEval pt. tracking system, DH process of care evaluations, case presentations	#1-15
DHY 203 Periodontics and Advanced Procedures	Exams 1-4, literature review, presentation, comprehensive final	#1-17
DHY 204 Pain Management in Dental Hygiene Practice	Unit exams, quizzes, lab & clinical competencies, med/dent case scenarios	#1-14
DHY 205 Nutrition and Biochemistry	Exams 1 & 2, Dietary Analysis & Energy Expenditure Projects	#1-12
DHY 210 Community Dental Health	Exams 1-4, Community Service Learning Lesson Plan, Presentation and Reflection Paper, Public Health and Cultural Competence Worksheets	#1-12
DHY 211 Dental Hygiene Ethics and Jurisprudence	Exam 1, Case studies	#6, 8, 10
DHY 220 Dental Hygiene Theory IV	Tests 1-3, Homework, Exit exam, Reflection papers	#2, 7, 14
DHY 221 Dental Hygiene Clinical IV	TalEval pt. tracking system, DH process of care evaluations, case presentations	#1-15

Program Competency #2**Interact effectively with patients, peers and dental hygiene care members utilizing professional written and oral communications.**

Course Where Competency is Addressed	List Competency Measurement Methods	Corresponding Course Objectives
DHY 101 Dental Hygiene Theory I	Exam 3, Final exam, Workbook assignments	# 3, 9, 12
DHY 102 Dental Hygiene Clinical II	Quiz 1, 4, Skill evaluations on charting & records, weekly student, faculty, patient interactions	#1, 7, 8, 10
DHY 104 Dental Radiology	Pt Ed paper	#1-12
DHY 108 Head, Neck and Oral Anatomy	OSCE 1-4, Lab ID and Workbooks, Tests 1-9	#1,2,4,5-13
DHY 110 Dental Hygiene Theory II	Portfolio project, Reflection Papers	#2, 3, 4, 9
DHY 111 Dental Hygiene Clinical II	TalEval patient tracking system, DH process of care evaluations, Case presentations, radiograph requirements & critiques	#1-10
DHY 112 Dental Materials and Procedures	Tests #1-4, Final, Skills Assessments #1-12	#3-10
DHY 113 General and Oral Pathology	Pathology Journal Project Tests 1,2,3,final, quizzes 1-10,	#1-17
DHY 116 Dental Pharmacology	Tests 1-3, Drug Reference Notebook	#1,2,4,11,12,14,15, 16,17,18
DHY 201 Dental Hygiene Theory III	Quiz 1-3, Test 1-3, Homework #1-6, Portfolio check, Professional meeting reflection paper	#6, 8, 9
DHY 202 Dental Hygiene Clinical III	Case presentations, Enrichment experiences, DH process of care evaluations	#7, 4, 5
DHY 203 Periodontics and Advanced Procedures	Exams 1-4, Literature review and classroom presentation, comprehensive final	#9, 10, 17
DHY 204 Pain Management in Dental Hygiene Practice	Med/dent case scenarios, clinical competencies	#2, 4, 5, 12
DHY 205 Nutrition and Biochemistry	Exams 1 & 2, Dietary Analysis & Energy Expenditure Projects	#7-12
DHY 210 Community Dental Health	Service Learning Project and reflection paper, Scientific Literature Review, Cultural Competency worksheet	#6, 12, 13
DHY 211 Dental Hygiene Ethics and Jurisprudence	Cultural research project, presentations	#7, 8
DHY 220 Dental Hygiene Theory IV	Tests 1-3, Resume, cover letter, portfolio, reflection papers, Observation paper	#1-6, 10
DHY 221 Dental Hygiene Clinical IV	Case presentations, Enrichment experiences, DH process of care evaluations,	#7, 4, 5

Program Competency #3**Develop an identity of self, supportive of continuous learning and professional endeavor.**

Course Where Competency is Addressed	List Competency Measurement Methods	Corresponding Course Objectives
DHY 102 Dental Hygiene Clinical II	Skill evaluations; DH process of Care- daily grade sheet	#7, 10
DHY 108 Head, Neck and Oral Anatomy	Lecture quizzes 1-11; lab assignments 1-28.	#1,5-13
DHY 201 Dental Hygiene Theory III	Professional meeting reflection papers, portfolio check	#8, 9
DHY 202 Dental Hygiene Clinical III	DH Process of Care, Skills Evaluations	#8, 9, 11, 12, 13
DHY 205 Nutrition and Biochemistry	Diet Analysis & Energy Expenditure Projects	#12
DHY 210 Community Dental Health	Final, Public health DH Roundtable discussions, Discussion Board Posts	#13, 14
DHY 211 Dental Hygiene Ethics and Jurisprudence	Exam 1, Case Studies; Moral compass and Cultural Competency Research papers, Homework 10	#8
DHY 220 Dental Hygiene Theory IV	Resume, cover letter, portfolio, reflection papers, observation paper, Test 1	#1, 2, 4, 5, 6
DHY 221 Dental Hygiene Clinical IV	Self-evaluation on skills evaluations; DH process of care	#8, 9, 11, 12, 13

Program Competency #4**Apply ethical, legal and regulatory concepts from the ADHA Code of Ethics and the State Dental Practice Act.**

Course Where Competency is Addressed	List Competency Measurement Methods	Corresponding Course Objectives
DHY 101 Dental Hygiene Theory I	Exam 1, Final Exam, Workbook assignments #1, 12	#2, 12
DHY 102 Dental Hygiene Clinical II	Skill evaluations, OSCE's, quizzes	#1, 2, 7, 8, 9, 10
DHY 104 Dental Radiology	Professionalism Points, Tests 1, final, Lab activities	#1-12
DHY 108 Head, Neck and Oral Anatomy	Professionalism grade	#1-4
DHY 110 Dental Hygiene Theory II	Quiz 1, 3-6, Final exam	#3, 7, 9
DHY 111 Dental Hygiene Clinical II	DH process of care evaluations- daily grade sheets	#1-4, 6, 8, 10
DHY 112 Dental Materials and Procedures	Safety Quiz, Quiz #1-4, Final, Homework #1-12, Skills Assessments #1-11	#1-10
DHY 113 General and Oral Pathology	Professionalism & Attendance grade	#1,2,7,8,15,16,17
DHY 116 Dental Pharmacology	Test 1, Workbook 1, Professionalism & Attendance grade	#1,2
DHY 201 Dental Hygiene Theory	Quiz 1-3, Test 1-3, Homework #1-6, Portfolio check	#6, 10, 12
DHY 202 Dental Hygiene Clinical III	DH process of care evaluations, Faculty observations	#1-3, 6, 5
DHY 204 Pain Management in Dental Hygiene Practice	Case scenarios, clinical competencies, unit exam 1	#1, 2, 4, 5, 9, 12,13
DHY 211 Dental Hygiene Ethics and Jurisprudence	Exam 1, Case studies, Homework #3, 5, 8, 9, Moral Compass Paper	#1, 2, 4, 5, 6, 8, 9
DHY 220 Dental Hygiene Theory IV	Portfolio, Reflection papers, Exit exam	#6, 10, 12
DHY 221 Dental Hygiene	DH process of care evaluations, Faculty observations	#1-3, 6, 15

Clinical IV		
Program Competency #5		
Initiate and assume responsibility for health promotion and disease prevention activities.		
Course Where Competency is Addressed	List Competency Measurement Methods	Corresponding Course Objectives
DHY 202 Dental Hygiene Clinical III	Tobacco Cessation, Nutrition and other Case presentations; OHI- DH Process of Care daily grade sheet	#2, 3, 5, 7, 14, 15
DHY 210 Community Dental Health	Service Learning Project Presentation and Reflection Paper, Structure of Public Health Worksheet, Exams 1-4	#1, 5, 6
DHY 221 Dental Hygiene Clinical IV	Tobacco Cessation, Nutrition and other Case presentations, OHI- DH Process of Care daily grade sheet	#2, 3, 5, 7, 14, 15

Program Competency #6		
Acquire and synthesize information in a critical, scientific and effective manner.		
Course Where Competency is Addressed	List Competency Measurement Methods	Corresponding Course Objectives
DHY 101 Dental Hygiene Theory I	Exams 1-3, Final exam, Workbook assignments	#1-12
DHY 104 Dental Radiology	Tests 2, 3, 4, 5, 6, final, Pt Ed paper	#1-12
DHY 108 Head, Neck and Oral Anatomy	Exams 1-9, OSCEs, Lab quizzes	#1-4
DHY 110 Dental Hygiene Theory II	Quiz 1-6, Homework 1-7, Final exam	#2, 3, 4, 5, 6, 9
DHY 111 Dental Hygiene Clinical II	DH process of care evaluations, Case presentations, radiograph requirements & critiques	#1-8
DHY 112 Dental Materials and Procedures	Quiz #1-4, Final, Homework #1-12	#1-10
DHY 113 General and Oral Pathology	Pathology Journal Project	#1-17
DHY 116 Dental Pharmacology	Tests 1-3, Case Studies 1-3	#1-18
DHY 201 Dental Hygiene Theory	Quiz 1-3, Test 1-3, Homework #1-6, Portfolio check	#1, 3, 4, 6
DHY 202 Dental Hygiene Clinical III	DH process of care evaluations	#1-15
DHY 203 Periodontics and Advanced Procedures	Exams 1-4, literature review, final exam	#1-17
DHY 204 Pain Management in Dental Hygiene Practice	Case scenarios, clinical competencies, unit exams and quizzes	# 1-14
DHY 205 Nutrition and Biochemistry	Exams 1 & 2, Dietary Analysis & Energy Expenditure Projects	#1-12
DHY 210 Community Dental Health	Exam 2, Final, Literature Review, Service Learning Project	#10, 11, 12
DHY 220 Dental Hygiene Theory IV	Tests 1-3, homework, Exit exam, Portfolio	#7, 8, 9, 10 14
DHY 221 Dental Hygiene Clinical IV	DH process of care evaluations	#1-15

Program Competency #7**Utilize technology effectively as it pertains to the delivery of patient care and practice management.**

Course Where Competency is Addressed	List Competency Measurement Methods	Corresponding Course Objectives
DHY 102 Dental Hygiene Clinical II	Charting & assessment records entered on clinic computer	#8, 9
DHY 104 Dental Radiology	Lab projects with traditional and digital imaging	#1-12
DHY 108 Head, Neck and Oral Anatomy	Exams delivered via paper tests and online modalities	#1-4
DHY 111 Dental Hygiene Clinical II	TalEval patient tracking system, radiograph requirements & critiques	#1, 2, 3
DHY 112 Dental Materials and Procedures	Skills Assessments #1-12	#3,4,5,8,10
DHY 116 Dental Pharmacology	Tests 1-3, Drug Cards	#1-18
DHY 202 Dental Hygiene Clinical III	TalEval programs, Dentrrix records, case presentations	#1, 2, 3
DHY 203 Periodontics and Advanced Procedures	Literature review & presentation	#17
DHY 205 Nutrition and Biochemistry	Dietary Analysis Project	#12
DHY 210 Community Dental Health	Service Learning Project, Literature Review	#6, 12
DHY 220 Dental Hygiene Theory IV	Research for resume, cover letter, portfolio, ePortfolio, professional development opportunities	#1, 3
DHY 221 Dental Hygiene Clinical IV	TalEval programs, Dentrrix records, case presentations	#1, 2, 3