

Oregon Institute of Technology Dental Hygiene Bachelor of Science

2009-20010 Assessment Report

I. Introduction

The OIT Dental Hygiene program began in 1970 as an Associate of Applied Science (AAS) program. Beginning in 1985, students had the option of completing a Bachelor of Science (BS) degree and in 2003, the program began awarding the BS degree only. All students must complete prerequisite courses to be eligible for application to the program. Acceptance to the program is selective and limited to no more than 27 students per year.

The five-year retention and graduation rate is presented in the Table 1 below.

Class 2006	Class 2007	Class 2008	Class 2009	Class 2010
27 (100%)	26 /27(96%)	23/27 (85%)	24/25 (96%)	25/27 (93%)

II. Program Purpose, Objectives, and Student Learning Outcomes

The Dental Hygiene faculty reviewed the program purpose, objectives, and learning outcomes during the fall retreat in September 2009. The faculty affirmed the statements below:

Dental Hygiene Program Purpose

The purpose of the Bachelor of Science in Dental Hygiene program is to prepare students for entry into the dental hygiene profession and additional careers such as public health, administration, education, research, and marketing. The graduate will be prepared to enter master degree programs in dental hygiene and related programs.

Program Educational Objectives

1. Provide the dental hygiene student the opportunity to gain the necessary knowledge, skills, and values to enter the registered practice of dental hygiene
2. Prepare the student to sit for the National Board Dental Hygiene Examination
3. Prepare the student to take the WREB examination in dental hygiene, anesthesia, and restorative.

Expected Student Learning Outcomes

1. The dental hygiene graduate will be competent in applying ethical, legal and regulatory concepts in the provision and/or support of oral health care services.
2. The dental hygiene graduate will be competent in critical thinking and self-assessment.
3. The dental hygiene graduate will be competent in interpersonal and communication skills to effectively interact with diverse population groups.
4. The dental hygiene graduate will be competent in assessing, planning, implementing and evaluating community-based oral health programs including health promotion and disease prevention activities.
5. The dental hygiene graduate will be competent in providing oral health care to individuals at all stages of life and for all periodontal classifications.

6. The dental hygiene graduate will continue professional growth and development after graduation.

The program also offers students experiential learning opportunities including:

- Membership in the Student American Dental Hygienists' Association (SADHA) and representation at state and national levels
- Professional meetings: Oregon Dental Conference, Oregon Dental Hygienists' House of Delegates Meeting, and American Dental Hygienists' Association Annual Meeting.
- Assessment, implementation, and evaluation of community health projects
- International trips to provide dental hygiene care to persons in third world countries
- Off campus experience: school-based screenings and presentations, health fairs, and dental clinics/offices.

III. Three-Year Cycle for Assessment and Student Learning Outcomes

At the fall retreat in September 2009, the faculty also confirmed the assessment cycle as adjusted in 2008-2009. The assessment cycle follows in Table 2 below.

Outcome	07-08	08-09	09-10	10-11	11-12	12-13
1. The dental hygiene graduate will be competent in applying ethical, legal and regulatory concepts in the provision and/or support of oral health care services			X			
2. The dental hygiene graduate will be competent in critical thinking and self-assessment		X			X	
3. The dental hygiene graduate will be competent in interpersonal and communication skills to effectively interact with diverse population groups				X		
4. The dental hygiene graduate will be competent in assessing, planning, implementing and evaluating community-based oral health programs including health promotion and disease prevention activities		X			X	
5. The dental hygiene graduate will be competent in providing oral health care to individuals at all stages of life and for all periodontal classifications	X			X		
6. The dental hygiene graduate will continue professional growth and development after graduation.			X			X

IV. Summary of 2009-2010 Assessment Activities

The Dental Hygiene faculty conducted formal assessment of two program student learning outcomes (PSLOs) and two institutional student learning outcomes (ISLOs) during 2009-2010. Table 3 summarizes the 2009-2010 assessment activities.

TABLE 3: Summary of 2009-2010 Assessment Activities		
<i>Student Learning Outcome</i>	<i>Criteria</i>	<i>Assessment Method</i>
PSLO # 1: The dental hygiene graduate will be competent in applying ethical, legal and regulatory concepts in the provision and/or support of oral health care services. ISLO #3: Professionalism and ethical practice	<ul style="list-style-type: none"> • Evaluate ethical issues related to a problem in the discipline • Demonstrate knowledge of the ADHA code of ethics • Demonstrate professional conduct in the academic environment 	<u>Direct Assessment</u> 1. Assignment: ethical dilemma 2. Advisor interview/daily clinic evaluations <u>Indirect Assessment</u> 1. Graduate survey
Assessment Points: DH 275 Dental Ethics, DH 322, 423 DH Clinic Practice & Seminar V, VIII		
PSLO #6: The dental hygiene graduate will continue professional growth and development after graduation.	<ul style="list-style-type: none"> • Access professional networks • Demonstrate continual growth <ul style="list-style-type: none"> ○ participate in study groups ○ obtain advanced degree ○ obtain new license endorsements ○ contribute to DH body of knowledge through research 	<u>Indirect Assessment</u> 1. Alumni survey
Assessment Point: 3-year and beyond graduation		
ISLO #2: Team and group work	<ul style="list-style-type: none"> • Identify and achieve goal/purpose • Assume roles and responsibilities as appropriate • Interact appropriately with team/group members • Recognize and help reconcile differences among team/group members • Share appropriately in work of team/group • Develop strategies for effective action 	<u>Direct Assessment</u> 1. Community Health Project
Assessment Points: DH 381, 382 Community Dental Health II, III		

PSLO # 1: The dental hygiene graduate will be competent in applying ethical, legal and regulatory concepts in the provision and/or support of oral health care services.
ISLO #3: Professionalism and ethical practice

DIRECT ASSESSMENT: ASSIGNMENT

The faculty assessed ethical practice in DH 422 Dental Hygiene Clinical Practice and Seminar VIII during fall term 2009 using an assignment. Given a scenario, students were required to demonstrate their ability to solve ethical problems by identifying provisions, issues, involved parties, approaches, and benefits and risks. Twenty-five senior students were involved in the assessment. Students were scored using a scale of 1 to 4. The faculty rated the proficiency of students using the criteria described in Table 4 below:

TABLE 4: ETHICS SCENARIO				
Performance Criteria	Assessment Method	Measurement scale	Minimum Acceptable Performance	Results
Provision #1	Scenario, rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	24/25 = 96%
Provision #2	Scenario, rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	23/25 = 93%
Performance Criteria	Assessment Method	Measurement scale	Minimum Acceptable Performance	Results
Provision #3	Scenario, rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	23/25 = 93%
Issues	Scenario, rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	16/25 = 64%
Parties	Scenario, rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	16/25 = 64%
Approaches	Scenario, rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	10/25 = 40%
Benefit & Risk	Scenario, rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	20/25 = 80%

Strengths: Students are able to identify provisions

Weaknesses: Students did not meet benchmark in identification of issues, parties, and approaches.

Plans for improvement: Faculty discussed results during a faculty meeting on January 6, 2010. One possible reason for the results may be due to the grading rubric, which was developed by the OIT Assessment Commission. In DH 275 Dental Ethics students learn to solve ethical dilemmas using the following steps:

1. Identify the problem
2. Gather facts
3. List alternatives
4. Select the course of action
5. Act on the decision
6. Evaluate the action

However, the grading rubric used different terms that may have been confusing to students. In the future, the instructor will review the rubric with students before giving the assignment and give examples so students fully understand the requirements of the rubric.

DIRECT ASSESSMENT: OBSERVATION & INTERVIEW

The faculty assessed professionalism in DH 223, 323 Dental Hygiene Clinic Practice and Seminar III and VI using daily observation during weeks 2-6 of spring term 2010. Twenty-two sophomore and twenty-six junior students were involved. The faculty rated the proficiency of students using a scale of 0-2 and the performance criteria described in Table 5 below:

KEY

0 = does not meet faculty expectations

1 = meets faculty expectations

2 = exceeds faculty expectations

TABLE 5: Professionalism Class of 2010	0	1	2
Student performs work in a timely manner	0	19	3
Student performs tasks according to course expectations	0	13	9
Student work product is done in a professional manner	0	11	11
Student accepts and carries out tasks with positive attitude	0	9	13
Student arrives on time or gives appropriate notification	1	19	2
Student regularly attends clinic/classes/meetings or gives appropriate notice	0	20	2
Student follows OIT Student Conduct Code, Dental Hygiene Class Conduct Code, ADHA Code of Ethics	0	19	3
Student interacts appropriately with others	0	18	4
Student is aware of and follows classroom policies and procedures	1	6	15
Student demonstrates effort and hard work	1	6	15
Student demonstrates appropriate professional appearance	0	0	21
TABLE 5: Professionalism Class of 2011	0	1	2
Student performs work in a timely manner	4	19	3
Student performs tasks according to course expectations	5	16	5
Student work product is done in a professional manner	2	21	3
Student accepts and carries out tasks with positive attitude	6	15	5
Student arrives on time or gives appropriate notification	5	21	5
Student regularly attends clinic/classes/meetings or gives appropriate notice	3	23	0
Student follows OIT Student Conduct Code, Dental Hygiene Class Conduct Code, ADHA Code of Ethics	3	18	5
Student interacts appropriately with others	4	22	0
Student is aware of and follows classroom policies and procedures	5	21	0
Student demonstrates effort and hard work	5	13	8
Student demonstrates appropriate professional appearance	7	15	4

Strengths and Weaknesses

The dental hygiene faculty enjoys working with students who display high levels of professionalism. One-hundred percent of sophomore students (class of 2012) performed at or exceeded faculty expectations in all criteria except three. Of those three criteria, more than 95% of students performed at or exceeded faculty expectations.

The dental hygiene program is rigorous with students becoming fatigued. Fatigue is a factor in lower performance in the junior class (class of 2011). Even though ratings were overall lower when compared to sophomore students, they fall within an almost perfect bell curve.



Plans for Improvement

The faculty discussed the results of the assessment during a faculty meeting on May 26, 2010. The faculty agrees that the rigors of the program reflect in student's decreased energy levels and morale as they progress in the program. The faculty strives to maintain balance in the program and will continue and increase those efforts.

INDIRECT ASSESSMENT: GRADUATE SURVEY

The faculty assessed this outcome using a graduate survey. Thirteen students participated in the assessment. The following Table 6 summarizes students reporting to responses to the criteria.

TABLE 6: 2010 Graduate Survey					
	Strongly Agree	Agree	Disagree	Strongly Disagree	Average
The OIT Dental Hygiene program helped me to be able to:					
Discern and manage ethical issues of dental hygiene practice in a changing environment	30.8% (4)	53.8% (7)	15.4% (2)	0	
Comply with state and federal laws governing the practice of dentistry and dental hygiene	46.2% (6)	53.8% (7)	0	0	
The OIT Dental Hygiene program prepared me to be competent in:					
Applying ethical, legal, and regulatory concepts to the provision and/or support of oral health care services	46.2% (6)	53.8% (7)	0	0	

Strengths

One hundred percent of graduates who completed the survey report strongly agree or agree that the OIT Dental Hygiene program:

- helped them to be able to comply with state and federal laws governing the practice of dentistry and dental hygiene

- prepared them to be competent in applying ethical, legal and regulatory concepts in the provision and/or support of oral health care services.

Weaknesses

Two graduates (15.4%) who completed the report disagrees that the OIT Dental Hygiene program helped them to discern and manage ethical issues of dental hygiene practice in a changing environment.

Strategies to Improve

The faculty reviewed the results of the graduate survey on April 30, 2010 during a faculty meeting. The faculty thinks the results may not represent the class as a whole because the response rate was only 52%. Survey Monkey was used to administer the survey after students had graduated. In order to get results that are more reliable, the survey will be administered before graduation and during class time to improve the response rate.

PSLO #6: The dental hygiene graduate will continue professional growth and development after graduation.

This outcome was not assessed. Development of an assessment tool is in progress with plans to assess during the 2010-2011 academic year.

ISLO #2: Team and group work

This outcome was assessed using a group project in DH 382 Community Dental Health III during winter term 2010. Both indirect and direct assessments were conducted. Twenty-six students functioning in six different groups self-assessed the group. Direct assessment was conducted by each group's advisor. The same assessment tool, a rubric, was used for both indirect and direct assessment. The following tables 8 and 9 summarize the results of the indirect assessment and direct assessments. Figure 1 compares the results of the indirect and direct assessments based on percentage of 4 and 3 scores.

TABLE 8: Teamwork Indirect Assessment n = 26				
	4	3	2	1
1. Identify and achieve goal/purpose	21	3	2	0
2. Assume roles and responsibilities as appropriate	12	11	3	0
3. Interact appropriately with team/group members	15	8	3	0
4. Recognize and help reconcile differences among team/group members	14	7	5	0
5. Share appropriately in work of team/group	17	6	3	0
6. Develop strategies for effective action	21	3	2	0

TABLE 8: Teamwork Direct Assessment n = 5				
	4	3	2	1
1. Identify and achieve goal/purpose	4	2	0	0
2. Assume roles and responsibilities as appropriate	3	3	0	0
3. Interact appropriately with team/group members	3	3	0	0
4. Recognize and help reconcile differences among team/group members	5	0	1	0
5. Share appropriately in work of team/group	2	3	1	0
6. Develop strategies for effective action	5	1	0	0

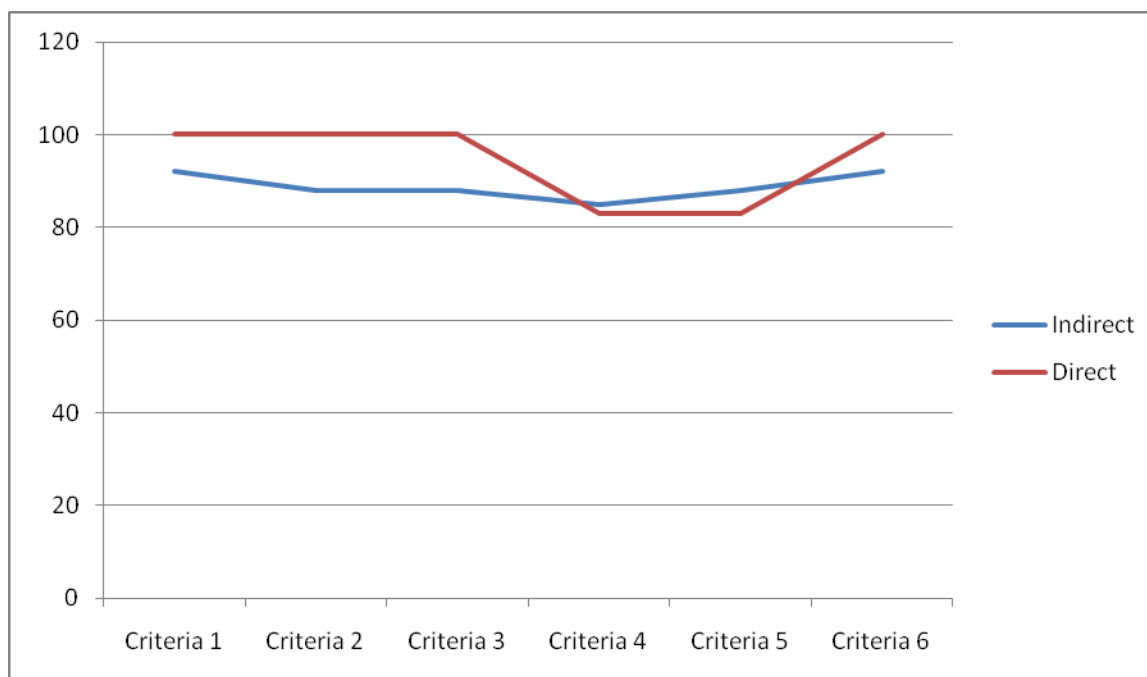


Figure 1 Comparison of Indirect and Direct Assessments

Strengths: Ninety-two percent of students reported their group was able to identify and achieve goal/purpose (criteria 1) and develop strategies for effective action (criteria 6) at high proficiency (4) or proficient (3). One hundred percent of advisors rated groups' ability to identify and

achieve goal/purpose, assume roles and responsibilities, appropriate interaction, and develop strategies for effective action (criteria 1, 2, 3, and 6) as high proficiency or proficient.

Weaknesses: All student groups met minimum acceptable performance in all criteria. However, the ability to recognize and help reconcile differences among team/group members (criteria 4) scored the lowest percent, 85%. One of six advisors rated group performance of criteria 4 and 5 as some proficiency.

Plans for Improvement

Although groups meet regularly with an advisor throughout the term, several advisors were unaware of any difficulty until reading the students' assessment comments. In the future, advisors will be more proactive in soliciting information from students regarding group work in the meetings and will facilitate appropriate mediation.

V. Changes Resulting From Assessment 2008-2009

SLO#2: The dental hygiene graduate will be competent in critical thinking and self-assessment

This outcome was assessed at several points using multiple assessment methods during the 2008-2009 academic year. A written report used in DH 423 Dental Hygiene Clinic Practice and Seminar VII revealed senior students performed at acceptable levels in critical thinking and self-assessment, however weakness was identified in writing mechanics. A review of the dental hygiene curriculum revealed all writing courses occur in the pre-requisite year. The faculty decided students needed formal instruction in writing later in the program. The chair sent a proposal to the Curriculum Planning Commission (CPC) to move WRI 227 Technical Report Writing from the freshman year to the junior year. The assessment will be repeated in subsequent terms to determine if the curriculum change is effective.

Assessment was also conducted in DH 475 Dental Hygiene Research Methods I using a self-assessment worksheet. Half or more of the senior students rated their ability as beginner or novice in distinguishing between publication types, in selecting appropriate study designs, defining levels of evident, using PubMed to search literature, and to critically appraise evidence. Based on assessment data, course content for DH 476 Dental Hygiene Research Methods II will include review of the concepts taught in DH 475 with more opportunity to practice searching for evidence and critical appraisal of literature. The self-assessment worksheet will be repeated fall term 2010 in DH 475 Dental Hygiene Research Methods II.

SLO#4: The dental hygiene graduate will be competent in assessing, planning, implementing, and evaluating community-based oral health programs including health promotion and disease prevention activities.

The outcome was assessed at several points using multiple assessment methods during the 2008-2009 academic year. Table clinic presentations used in DH 383 Community Dental Health IV during spring term revealed weakness in students' abilities to discuss and reflect. The instructor will provide more instruction so students are better prepared to identify what they would do differently to improve. It was also decided to remove the discussion criteria from the grading rubric as this criteria is not appropriate for the presentation.

Dental Hygiene Bachelor of Science SLO Curriculum Map

PSLO # 1: The dental hygiene graduate will be competent in applying ethical, legal and regulatory concepts in the provision and/or support of oral health care services.

ISLO #3: Professionalism and ethical practice.

The following curriculum map indicates the courses where teaching and/or learning occurs and the level to which this PSLO/ISLO is taught in the program.

KEY:

I = Introduced

R = Reinforced

E = Emphasized

		Fall	Winter	Spring	Summer
SOPHOMORE					
DH 221	DH Clin Prac & Seminar I				
DH 226	Head & Neck Anatomy				
DH 240	Prevention I				
DH 275	Dental Ethics	I E			
CHE 210	Clinical Pharmacology				
SPE 321	Small Group & Team Com				
DH 222	Clin Prac & Seminar II				
DH 237	Oral Histology & Embryology				
DH 241	Prevention II				
DH 244	General & Oral Pathology				
DH 252	Oral Radiology I		R		
DH 366	Dental Anatomy				
DH 223	DH Clin Prac & Seminar III			R	
DH 242	Prevention III				
DH 253	Oral Radiology II			R	
DH 254	Introduction to Periodontology				
DH 267	Emergency Procedures			R	
DH 380	Community Dental Health I				
PSY	Psychology Elective				
JUNIOR					
BUS 317	Health Care Management				
DH 321	DH Clin Prac & Seminar IV	R			
DH 340	Prevention IV				
DH 354	Periodontology				
DH 381	Community Dental Health II				
PSY 301	Basic Counseling Techniques				
DH 322	DH Clin Prac & Seminar V		R		
DH 341	Prevention V				
DH 351	Pain Management I				
DH 382	Community Dental Health III				
DH 323	DH Clin Prac & Seminar VI			R	
WRI 227	Technical Report Writing				
	Humanities Elective				
DH 323	Dental Hygiene Clin Prac & Seminar VI				
DH 344	Advanced General & Oral Pathology				
DH 352	Pain Management II				
DH 363	Dental Materials				
DH 370	International Externship (opt)				
DH 383	Community Dental Health IV				

SENIOR						
BUS	331	Personal Finance				
DH	371	International Externship (opt)				
DH	421	DH Clin Prac & Seminar VII				R
DH	461	Restorative Dentistry I				
DH	475	DH Research Methods I				
MATH	243	Introductory Statistics				
AHED	450	Instructional Methods				
DH	372	International Externship (opt)				
DH	422	DH Clin Prac & Seminar VIII	R			
DH	462	Restorative Dentistry II (opt)				
DH	476	DH Research Methods II				
		Communication Elective				
		Humanities Elective				
DH	423	DH Clin Prac & Seminar IX		R		
DH	454	Dental Practice Management		R		
DH	463	Restorative Dentistry III				
DH	477	DH Research Methods III				
		Humanities Elective				
		Psychology Elective				

ISLO #2: Team and group work

Course that are bolded in the table below indicate that students demonstrate skills or knowledge in the SLO, and/or students receive feedback on their performance.

KEY:

I = Introduced

R = Reinforced

E = Emphasized

			Fall	Winter	Spring	Summer
SOPHOMORE						
DH	221	DH Clin Prac & Seminar I				
DH	226	Head & Neck Anatomy				
DH	240	Prevention I				
DH	275	Dental Ethics				
CHE	210	Clinical Pharmacology				
SPE	321	Small Group & Team Com	IE			
DH	222	Clin Prac & Seminar II				
DH	237	Oral Histology & Embryology				
DH	241	Prevention II				
DH	244	General & Oral Pathology				
DH	252	Oral Radiology I				
DH	366	Dental Anatomy				
DH	223	DH Clin Prac & Seminar III				
DH	242	Prevention III				
DH	253	Oral Radiology II				
DH	254	Introduction to Periodontology				
DH	267	Emergency Procedures				
DH	380	Community Dental Health I				
PSY		Psychology Elective				
JUNIOR						
BUS	317	Health Care Management				
DH	321	DH Clin Prac & Seminar IV				
DH	340	Prevention IV				
DH	354	Periodontology				

		Fall	Winter	Spring	Summer
DH 381	Community Dental Health II	E			
PSY 301	Basic Counseling Techniques				
DH 322	DH Clin Prac & Seminar V				
DH 341	Prevention V				
DH 351	Pain Management I				
DH 382	Community Dental Health III		E		
DH 323	DH Clin Prac & Seminar VI				
WRI 227	Technical Report Writing				
	Humanities Elective				
DH 323	Dental Hygiene Clin Prac & Seminar VI				
DH 344	Advanced General & Oral Pathology				
DH 352	Pain Management II				
DH 363	Dental Materials				
DH 370	International Externship (opt)			E	
DH 383	Community Dental Health IV			E	
SENIOR					
BUS 331	Personal Finance				
DH 371	International Externship (opt)				E
DH 421	DH Clin Prac & Seminar VII				
DH 461	Restorative Dentistry I				
DH 475	DH Research Methods I				
MATH 243	Introductory Statistics				
AHED 450	Instructional Methods				
DH 372	International Externship (opt)	E			
DH 422	DH Clin Prac & Seminar VIII				
DH 462	Restorative Dentistry II (opt)				
DH 476	DH Research Methods II				
	Communication Elective				
	Humanities Elective				
DH 423	DH Clin Prac & Seminar IX				
DH 454	Dental Practice Management				
DH 463	Restorative Dentistry III				
DH 477	DH Research Methods III				
	Humanities Elective				
	Psychology Elective				