

Oregon Institute of Technology

Bachelor of Science Degree in Dental Hygiene

Degree Completion Outreach Program

Assessment Report 2008-2009¹

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 to complete a Bachelor of Science (BS) degree and in 2003 the program began awarding the BS degree only. In 1996 a Bachelor of Science Degree Completion program was introduced. The degree completion program offers dental hygienists who have earned an associate's degree the opportunity to complete a Bachelor of Science Degree in Dental Hygiene. The degree may be completed at OIT or through an online, web-based distance learning program.

Enrollment in the program has steadily increased over the past five years from seven students enrolled in 2003 to fifty six students enrolled in 2007.

Enrollment BDHO Fourth Week				
2003	2004	2005	2006	2007
7	15	15	29	56

II. Purpose, Objectives, and Student Learning Outcomes

On September 9 and 19, 2008 the dental hygiene department determined the program purpose, objectives, and student learning outcomes for the Bachelor's Degree Completion Outreach Program.

The purpose statement is:

“The purpose of the Bachelor's Degree Completion Outreach Program in Dental Hygiene is to prepare the graduate for career opportunities outside clinical dental hygiene such as education, public health, and business management.”

The following describes the objectives and student learning outcomes expected of graduates of the Bachelor's Degree Completion Outreach Program:

1. The program prepares the student to achieve professional growth and development
The graduate will be able to:
 - 1.1. Read and critique professional literature
 - 1.2. Use evidence-based decision making to evaluate and incorporate emerging treatment modalities into dental hygiene practice.
 - 1.3. Implement practice management strategies that increase the effectiveness, efficiency, and profitability of the dental hygiene practice.
 - 1.4. Participate in the various aspects of dental practice management including marketing, technology, and office production
 - 1.5. Identify current and emerging issues in the profession of dental hygiene
 - 1.6. Assess the need for, develop, implement and evaluate oral health care programs in their communities

¹ Last revised September 9, 2009

1.7. Design and deliver instruction for undergraduate dental hygiene students.

III. Assessment Cycle

Student learning outcomes will be assessed every three years. The 3-year assessment cycle follows in Table 1 below.

TABLE 1: Assessment Cycle			
Learning Outcomes	07-08	08-09	09-10
1.1 Read and critique professional literature	•		
1.2 Use evidence-based decision making to evaluate and incorporate emerging treatment modalities into dental hygiene practice		•	
1.3 Implement practice management strategies that increase the effectiveness, efficiency, and profitability of dental hygiene practice			•
1.4 Participate in various aspects of dental practice management including marketing, technology, and office production			•
1.5 Identify current and emerging issues in the profession of dental hygiene			•
1.6 Assess the need for, develop, implement and evaluate oral health care programs in their communities		•	
1.7 Design and deliver instruction for undergraduate dental hygiene students		•	

IV. Summary of 2008-2009 Assessment Activities

The dental hygiene faculty conducted formal assessment of three student learning outcomes during 2008-2009 as scheduled in the assessment cycle. The assessment activities are summarized in Table 2 below.

TABLE 2: 2008-2009 Assessment Activities		
Student Learning Outcome	Criteria	Assessment Method
SLO #1.2 Use evidence-based decision making to evaluate and incorporate emerging treatment modalities into dental hygiene practice	Development of clinic protocol or procedure into dental hygiene practice	<u>Direct Assessments</u> <ul style="list-style-type: none"> ▪ Project Evaluation
Assessment Point: DH 453 Current Issues in Dental Hygiene, Summer Term		
SLO #1.6 Assess the need for, develop, implement and evaluate oral health care programs in their communities	Provide oral health services in a variety of settings Take responsibility for coordinating an oral health program	<u>Direct Assessments</u> <ul style="list-style-type: none"> ▪ Project assignments
Assessment Point: DH 470 Community Program Planning, Summer Term		
SLO 1.7 Design and deliver instruction for undergraduate dental hygiene students	Design lesson plans that address different learning styles Design modules of instruction for online delivery Teach a didactic class Provide clinical and lab instruction	<u>Direct Assessments</u> <ul style="list-style-type: none"> ▪ Develop Unit of Instruction ▪ Teaching Portfolio ▪ Deliver Unit of Instruction ▪ Develop Unit of Online Instruction
Assessment Point: DH 450 Instructional Methods and DH 452 Instructional Practicum, Winter Term; DH 460 Fundamentals of Distance Learning and DH 451 Instructional Experience, Spring Term		

IV. Summary of 2008-09 Assessment Activities

The dental hygiene faculty conducted formal assessment of three student learning outcomes during 2008-09.

Student Learning Outcome #1.2: Use evidence-based decision making to evaluate and incorporate emerging treatment modalities into dental hygiene practice.

This outcome was assessed summer term in DH 453 Current Issues in Dental Hygiene using a project. Seven students enrolled in the course were required to identify an area of difficulty or curiosity in their dental hygiene practice, determine a solution, research information, and create a product (project). The project should demonstrate the students' ability to reflect upon her/his own dental hygiene practice, think about how to improve that practice, and use evidence-based decision making to evaluate and incorporate emerging treatment modalities into practice. The

projects were assessed using a grading rubric. The following table (Table 3) is a summary of the assessment. (See appendix for original rubric.)

TABLE 3: Project Summary				
	Excellent	Meets Expectations	Needs Improvement	Not submitted
Justification for project	4	1	1	1
Originality	6			1
Resources and Accuracy	2	3		2
Project	4	1	1	1

Strengths

Most students (6 out of 7) were able to create an original project or an original compilation of existing work.

Weaknesses

Some students did not fulfill all requirements of the project and/or need improvement in one or more objectives.

The instructor identified the following problems with the course:

- The project instructions did not adequately emphasize the process of evidence-based decision making
- The course content did not include instruction in evidence-based decision making although DH 401, a course taken prior to DH 453, does include one module on evidence-based decision making

Another finding of this assessment was that some students do not seem to understand plagiarism.

Recommendations

Based on assessment findings, the instructor suggests the following changes:

1. Provide a better foundation in the process of evidence-based decision making. DH 453 and DH 455 should complement one another. The instructors of these two courses need to review course descriptions, course objectives and course assignments in order to provide the foundation necessary for students to make evidence-based decisions.
2. Include a cautionary note regarding plagiarism in the “Read Me First” module and in the syllabus.
3. Provide students with an example of an acceptable project.

SLO #1.6 Assess the need for, develop, implement and evaluate oral health care programs in their communities

Students’ ability to assess the need for and develop community oral health care programs was assessed summer term in DH 470 Community Program Planning using assignments. Three students enrolled in the course were required to conduct a needs assessment using the Association of State and Territorial Dental Directors (ASTDD) seven-step model and make a plan for a community health program. For each step, students completed an assignment. Each assignment was assessed for spelling, grammar, thoroughness, and ability to follow instructions. The following table (Table 4) is a summary of the assessment findings.

	Spelling			Grammar			Thoroughness			Instructions		
	P	C	B	P	C	B	P	C	B	P	C	B
Step 1: Identify partners and form advisory committee	3			3			3			3		
Step 2: Conduct self assessment to determine goals and resources	3			3			2		1	3		
Step 3: Plan needs Assessment	3			3			2		1	2		1
Step 4: Collect data	3			3			2		1	2	1	
Step 5: Organize and analyze data	3			3			1	2		3		
Step 6: Utilize data for program planning, advocacy and education Prioritize issues and report findings	3			3			3			3		
Planning: Goals, objectives, & strategies	3			3					3	3		
Planning: Program timeline	3			3			3			3		
Planning: Community presentations	3			3			2	1		3		
Step 7: Evaluate needs assessment	3			3			2	1		3		

Key: P = proficient; C = competent; B = beginner

Strengths

All enrolled students performed at proficient levels in spelling and grammar for all steps and in all criteria for step 6.

Weaknesses

One-third of the class performed at a beginner level in thoroughness for steps 2, 3, and 4 and in ability to follow instructions for step 3. All students performed at the beginner level in thoroughness for writing program goals, objectives, and strategies.

Recommendations

Based on the assessment data, the instructor will review the reading content for steps 2, 3, 4, & 7 to evaluate for clarity and to determine if instruction in addition to the assigned reading may be helpful for student learning. However, the class size may be too small to draw any valid conclusions from the assessment data.

SLO 1.7 Design and deliver instruction for undergraduate dental hygiene students.

This outcome was assessed during winter term in DH 450 Instructional Experience using an assignment and in DH 452 Instructional Practicum using a portfolio, and during spring term in DH 451 Instructional Experience and DH 460 Fundamentals of Distance Learning using assignments.

Direct Assessment #1: Develop a Unit of Didactic Instruction

In DH 450 Instructional Experience, students were given an assignment to develop a unit of didactic instruction using the 4-MAT method. Fifteen students were assessed using a grading rubric. The grading rubric utilized a scale of points 6, 4, 2, and 0. The results of the assignment are summarized in Table 5 below. (See appendix for original rubric.)

	6 pts	4 pts	2 pts	0 pts
Unit Topic	15	0	0	0
Lesson Outcomes	15	0	0	0
Cognitive Objectives	11	4	0	0
Psychomotor & Affective Objectives	15	0	0	0
4MAT Activities	15	0	0	0
Creativity	15	0	0	0
Planned Visual Aids & Handouts	15			
Student Assessment	15			

Strengths: Students are able to plan instruction including unit topic, lesson outcomes, cognitive objectives, psychomotor & affective objectives, creative activities for different learning styles, visual aids & handouts, and student assessment.

Weaknesses: Some students did not write objectives that contained all three required components (condition, performance, and criterion) of a well-written objective

Recommendation: Currently, students are required to complete an assignment in writing objectives and the instructor provides specific examples and feedback. To improve student performance, encourage students to edit objectives after giving feedback. Additionally, provide more examples of well-written objectives.

Direct Assessment #2: Teaching Portfolio

In DH 452 Instructional Practicum, students were required to submit a teaching portfolio. Four students were assessed using a grading rubric. The rubric utilized a point distribution ranging from 0-10 with 0-2 points being “strongly disagree,” and 9-10 points being “strongly agree.” (See appendix for original rubric.)

Strengths: Students are able to prepare teaching portfolios including content, statement of teaching philosophy, reflection, mentors and students, activities, and future goals. All students scored maximum points in all categories.

Weaknesses: None

Direct Assessment #3: Deliver a Unit of Instruction in a Classroom Setting

In DH 451 Instructional Experience, students were given an assignment to deliver a unit of instruction in a classroom setting. Three students recorded and self-assessed their presentations in writing. The writing was scored using a scale of 3-0 with 3 being excellent and 0 being poor. The instructor also viewed the video for verification. The following table (Table 6) summarizes the results of the assessment.

TABLE 6: Assignment – Deliver Unit of Instruction				
Criteria	Excellent 3 pts	Good 2 pts	Fair 1 pt	Poor 0 pt
Discussed strengths and weakness of presentation	3			
Described how well you thought you motivated your students	3			
Explained if you were satisfied with the content and visual aids	3			
Discussed if teaching strategies were effective	3			
Described what you would do differently next time	3			
Discussed results of student evaluations of your teaching	3			
No spelling or grammar errors; Format: double-spaced, Times New Roman, size 12 No errors = 2 points, 1-2 errors = 1 point, 3 or more errors = 0 points		3		

Strengths: All students self-assessed their learning and performance as excellent.

Weaknesses: None

Recommendations: None

Direct Assessment #4: Develop a Unit of Online Instruction

In DH 460 Fundamentals of Distance Learning, six students were given an assignment to develop a unit of online instruction using the 4-MAT method. The assignment was done twice, once as individuals and once in teams of three. The assignments were evaluated using a rubric and a point scale of 6, 4, 2, and 0. The following table (Table 7) summarizes the results.

TABLE 7				
Assignment: Develop unit of on-line instruction (Individual)				
	6	4	2	1
Unit Topic	6			
Lesson Outcomes	6			
Cognitive Objectives	6			
Psychomotor & Affective Objectives (If applicable)	6			
4MAT Activities	6			
Creativity	6			
Planned Visual Aids & Handouts	6			
Student Assessment	6			
Evaluation	2 = yes		0 = no	
Assignment: Develop unit of on-line instruction (Teams)				
Unit Topic	2			
Lesson Outcomes	2			
Cognitive Objectives	1	1		

Psychomotor & Affective Objectives (If applicable)	2			
4MAT Activities	2			
Creativity	2			
Planned Visual Aids & Handouts	2			
Student Assessment	2			
Evaluation	2 = yes		0= no	

Strengths: Students perform all phases of lesson plan development at a high level.

Weaknesses: None

Recommendations: None

V. Changes Resulting from Assessment

Based on 2007-2008 Assessment Activities, DH455 Dental Hygiene Research, offered fall term 2008, was revised to include more practice in assessment of original research. Students assessed four different types of research studies, randomized clinical trial, cohort, case controlled and systematic reviews. In the ninth week student work was evaluated by peers and in week 10 students wrote a short paper on the value of their learning.

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Appendix

Student Learning Outcomes Course Matrix

SLO #1.2 Use evidence-based decision making to evaluate and incorporate emerging treatment modalities into dental hygiene practice.

	Course #	Course Name	Instructor	Assessed
Fall	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 451	Instructional Experience (E)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 455	Dental Hygiene Research (R)	Gates	
	DH 460	Foundations of Distance Ed (E)	Hopper	
	DH 480	Community Health Practicum (E)	Gates	
Winter	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 450	Instructional Methods (R)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 454	Dental Practice Management (R)	Schultz	
	DH 455	Dental Hygiene Research (R)	Gates	
	DH 470	Community Program Planning (R)	Gates	
Spring	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 450	Instructional Methods (R)	Hopper	
	DH 451	Instructional Experience (E)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 453	Current Issues in Dental Hygiene (R)	Schultz	
	DH 455	Dental Hygiene Research (R)	Gates	
	DH 460	Foundations of Distance Ed (E)	Hopper	
	DH 480	Community Health Practicum (E)	Gates	
Summer	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 450	Instructional Methods (R)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 453	Current Issues in Dental Hygiene (R)	Schultz	X
	DH 454	Dental Practice Management (R)	Schultz	
	DH 470	Community Program Planning (R)	Gates	

E = Elective Course
R = Required Course

SLO #1.6 Assess the need for, develop, implement and evaluate oral health care programs in their communities.

	Course #	Course Name	Instructor	Assessed
Fall	DH 401	Overview of Advanced DH (R)	Schultz	
	DH451	Instructional Experience (E)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 455	Dental Hygiene Research (R)	Gates	
	DH 460	Foundations of Distance Ed (E)	Hopper	
	DH 480	Community Health Practicum (E)	Gates	
Winter	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 450	Instructional Methods (R)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 454	Dental Practice Management (R)	Schultz	
	DH 455	Dental Hygiene Research (R)	Gates	
	DH 470	Community Program Planning (R)	Gates	
Spring	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 450	Instructional Methods	Hopper	
	DH 451	Instructional Experience (E)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 453	Current Issues in Dental Hygiene (R)	Schultz	
	DH 455	Dental Hygiene Research (R)	Gates	
	DH 460	Foundations of Distance Ed (E)	Hopper	
	DH 480	Community Health Practicum (E)	Gates	
Summer	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 450	Instructional Methods (R)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 453	Current Issues in Dental Hygiene (R)	Schultz	
	DH 454	Dental Practice Management (R)	Schultz	
	DH 470	Community Program Planning (R)	Gates	X

E = Elective Course
R = Required Course

SLO #1.7 Design and deliver instruction for undergraduate dental hygiene students

	Course #	Course Name	Instructor	Assessed
Fall	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 451	Instructional Experience (E)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 455	Dental Hygiene Research (R)	Gates	
	DH 460	Foundations of Distance Ed (E)	Hopper	
	DH 480	Community Health Practicum (E)	Gates	
Winter	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 450	Instructional Methods (R)	Hopper	X
	DH 452	Instructional Practicum (E)	Hopper	X
	DH 454	Dental Practice Management (R)	Schultz	
	DH 455	Dental Hygiene Research (R)	Gates	
	DH 470	Community Program Planning (R)	Gates	
Spring	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 450	Instructional Methods	Hopper	
	DH 451	Instructional Experience (E)	Hopper	X
	DH 452	Instructional Practicum (E)	Hopper	
	DH 453	Current Issues in Dental Hygiene (R)	Schultz	
	DH 455	Dental Hygiene Research (R)	Gates	
	DH 460	Foundations of Distance Ed (E)	Hopper	X
	DH 480	Community Health Practicum (E)	Gates	
Summer	DH 401	Overview of Advanced DH (R)	Schultz	
	DH 450	Instructional Methods (R)	Hopper	
	DH 452	Instructional Practicum (E)	Hopper	
	DH 453	Current Issues in Dental Hygiene (R)	Schultz	
	DH 454	Dental Practice Management (R)	Schultz	
	DH 470	Community Program Planning (R)	Gates	

E = Elective Course
R = Required Course

**Direct Assessment: Project
DH 453, Current Issues in Dental Hygiene**

	Excellent	Meets Expectations	Needs Improvement	Not Submitted
Justification for project	Project is obviously a result of self-reflection. Reason and need for project is clearly stated. Problem being solved is described			
Originality	Project is something student has created or is an original compilation of existing work, such as a compilation of several charts			Assignment is not submitted or submission is obviously a resubmission of a technical report or report from another class. Submission is simply a reprint from another source.
Resources & Accuracy	All journal sources cited in APA format. Date and subject of interviews cited. Correct spelling. Information included in project is current and accurate	Minor spelling errors or inaccuracies in citations	Inaccuracies in the project information	Assignment not submitted
Project	Useful in practice. Demonstrates evidence-based decision making. Incorporates an emerging treatment modality. Project is submitted the way it will be used in practice.	Project information is useful, but is not submitted in the way it will be used in practice. Is useful, but does not incorporate emerging or newer treatment modalities.	Project offers minimal information. Reflects little creativity, self reflection or effort.	Assignment not submitted or lacks usefulness.

**Direct Assessment: Develop Unit of Instruction
DH 451 Instructional Methods**

Criteria	6 Points	4 points	2 Points	0 Points
Unit Topic	Focused, achievable, and audience defined	Topic too broad or not clearly defined	Topic not matched to needs of audience	Topic unclear and audience undefined
Lesson Outcomes	Student instructor has very clear idea what students should achieve. Outcome is achievable and/or measurable	Student instructor has clear idea what students should achieve but outcome is too narrow or too broad	Student instructor has some idea about lesson outcome but it is not achievable or measurable	Student is unclear about lesson outcome
Cognitive Objectives	Objectives are clearly written and measurable; objectives include all required and optional components; objectives span Bloom's taxonomy	Clearly written; measurable; all include required components; none include any optional components; spans Bloom's taxonomy	Objectives lack clarity and are difficult to measure	Required components are not present; unclear; do not follow logical progression of the taxonomy
Psychomotor & Affective Objectives (If applicable)	These objectives are included if applicable and are clearly written	Objectives are included but are not measurable	Objectives are included but are not clearly written	These objectives are applicable but are missing from lesson plan
4MAT Activities	Lesson plan follows 4MAT order; obvious understanding of the type of activities that belong in each quadrant; includes R & L brain activities & prior expectations reflect level of student learning	Lesson plan follows 4MAT order; understanding of the type of activities that belong in each quadrant; some activities don't reflect level of student learning	Lesson plan doesn't completely follow 4MAT order; some Rt & Lt brain activities confused; plan needs some improvement	Lesson plan is not logical and does not make sense; plan does not flow from quadrant to quadrant; unclear what will happen in practice
Creativity	Planned activities are 4MAT and audience appropriate; show creativity and thought; should create interest by students	Planned activities do not correspond to all 4 quadrants, need more creativity	Activities are fairly standard	Activities are dull, lack creativity

Planned Visual Aids & Handouts	Obvious planning so that visual aids/ handouts add value to lesson	Planned visual aids need improvement and a bit more work to be presentation ready	Guidelines for creating visual aids are not followed; not well planned; needs significant work to be presentation ready	Visual aids not planned or are inappropriate
Student Assessment	Assessment method measures how well students achieved objectives; clearly written	Assessment method matches objectives, but not clearly written	Poorly written assessment that is difficult for students to interpret	Assessment method does not match objectives; poorly written
Faculty Evaluation	Included faculty evaluation tool 2 = yes; 0 = no			

Direct Assessment: Teaching Portfolio DH 452 Instructional Practicum					
Criteria	9-10 SA	7-8 A	5-6 N	3-4 DA	0-2 SDA
Content requirements – includes all of the above requirements, plus additional information that demonstrates the student’s learning experiences while teaching; no errors in spelling, grammar, or writing mechanics					
Table of contents – includes each page of the portfolio numbered for easy reference					
Statement of teaching philosophy – identifies teaching style and clearly defines teaching goals					
Reflection – clearly describes achievement of teaching goals from beginning of the term					
Mentors and students – discusses experiences working with mentors and students					
Activities – describes teaching activities and settings, including what worked well and what did not					
Future goals – identifies future teaching goals					

Key: SA = strongly agree; A = agree; N = neutral; DA = disagree; SDA = strongly disagree