

Strong liaisons have been developed with local and state dental/dental hygiene associations. These liaisons combined with a strong advisory committee also impact the dental hygiene curriculum. In addition, graduate and employer surveys are evaluated for potential curricular revision.

* Note: Every department is required to review Master Syllabi and Program Learning Outcomes a minimum of every two years.

II. Program Learning Outcomes: A description of what you intend for students to know (cognitive), think/feel (affective), or do (psychomotor), when they have completed your degree program. A suggested manageable number of outcomes should be in the range of five to ten. Describe Program Learning Outcomes review activities*.

Program Learning Outcomes review occurs concurrently with curriculum review.

An entry-level graduate with an Associate of Applied Science Degree in Dental Hygiene from Sinclair Community College will be able to:

Learning Outcomes	Related Courses
1. Demonstrate competencies of assessment, planning, implementation, and evaluation in the provision of current and comprehensive oral health care services in a variety of clinical and community settings.	ALH 104, 220; BIO 205; CHE 122; COM 211, DEH 103, 105, 106, 111, 112, 113, 125, 135, 155, 156, 157, 210, 211, 212, 213, 215, 220, 235, 236, 250, 253, 255
2. Apply knowledge of infection control in the maintenance of client care facilities following the regulatory standards and requirements established by OSHA and other federal, state, and local agencies.	ALH 220; BIO 205; COM 211; DEH 105,111, 112, 113, 120, 125, 135, 155, 156, 157, 210, 211, 212, 213, 220, 250, 253, 255
3. Demonstrate the ability to effectively communicate a wide range of information with clients, healthcare providers, and the public regarding preventive, therapeutic, and educational information.	DEH 105, 106,111, 112, 113, 120, 156, 157, 211, 212, 213, 235, 236, 255; PSY 119; ENG 111, 112; COM 211

Learning Outcomes	Related Courses
4. Develop an understanding and appreciation for a diverse society in the design and provision of oral healthcare services and in the development and function of multiprofessional teams.	ALH 104; DEH 105,106,156, 157, 211, 212, 213, 235, 236; 255, ENG 111, 112; PSY 119; COM 211; SOC 111; HUMANITIES
5. Demonstrate a wide range of technological competencies including equipment use and care, research, data management and presentation.	ALH 104; DEH 105,106, 111, 112, 113, 125, 156, 157, 211, 212, 213, 235, 236, 253; 255, COM 211

III. Assessment Method(s): A measurable indicator of success in attaining the stated learning outcome(s). The methodology should be both reliable and valid. Please describe in detail.

- a. **Formative Assessment Method(s) and Description:** a measurable indicator of student in-progress success in attaining the stated learning outcome(s).

The dental hygiene department provides students with an optional dental hygiene board review. These sessions cover content categories that appear on the board and are very well attended. The review is usually scheduled for ten one-hour sessions. Faculty members volunteer to conduct each session. This allows students to self-assess their level of preparation.

Mock boards are administered four to six weeks prior to the Dental Hygiene National Board Examination. These experiences serve as a highly reliable predictor of student performance. Areas of weakness can be identified for the development of a remediation plan prior to the actual exam.

Dental hygiene students are required to enroll in two pre-clinical and four clinical courses that are skill building and competency based. Formative assessment occurs during each clinical session and is based on specific evaluation criteria. Every clinical course is composed of both lecture (didactic) and a laboratory (patient simulation) or clinical (human patient) component to ensure that competency is achieved. Students must successfully pass all instrumentation competencies prior to entering first quarter clinic.

The student to faculty ratio in each clinical session is 5 to 1. Students must achieve a competency level of 80% or higher in each clinical course and a competency level of 70% or higher in all non-clinical DEH courses.

CAPs (Corrective Action Plans) are developed for students who are not meeting the required competency level for any clinical/lab procedure. This need is determined by daily formative assessment that occurs during all clinicals and labs. Faculty and students are involved in remediation plan development and implementation.

Quizzes and written examinations are used in the didactic portions of the DEH courses to assess and monitor student progress. Questions that closely simulate board exams are included in all written testing. In addition, numerous practical experiences provide the hands-on opportunities for the application of the didactic content in clinical and community settings. Discussion group participation, case studies, oral presentations, group projects, and formal research papers are also required of DEH students.

Students use poster and table clinic presentations to demonstrate the results of their formal research topics. Presentations are articulated at business meetings with dental hygiene and dental professionals within the field, and at state and local professional competitions. In addition, students also provide presentations to other allied health professionals in “peer to peer” educational opportunities. Sinclair DEH students have an exemplary reputation for receiving high awards and honors at the annual state competition. Students also use their materials as means to communicate research findings to the college community through a bulletin board display on the third floor atrium of building 4.

The dental hygiene department has incorporated the General Education checklists as a routine part of formative and summative assessment.

- b. **Summative Assessment Method(s) and Description:** a measurable indicator of end-of-program success in attaining the stated program learning outcomes(s).

Students must complete qualitative (competencies) and quantitative clinical requirements prior to program completion in addition to the overall curriculum requirements. Final exams, practicals, mock exams, research papers, case-study presentations, group projects, service-learning projects, etc. are examples of the summative evaluation process that occurs.

Results of the National Dental Hygiene Board Examination are received by the DEH department and used to measure student progress. Students must receive a percentile score of 75 or higher to pass the exam. Historically, NDHB scores highly correlate with summative assessment findings. This includes individual as well as cohort composite scores. Results are also used as part of the annual curriculum review process in the consideration of course/program revisions.

To practice in the state of Ohio, students must also take the Northeast Regional Board Dental Examination. This exam is composed of a computer simulated exam and a human subject clinical exam (SCC is a testing site). Students must achieve a competency level of 75% or higher to pass. Results of the practical/clinical examinations are also received by the DEH Department and are used in the curriculum review process.

Also, DEH students take the Ohio State Dental Law Examination. This test is administered to students during their last quarter of the curriculum. Students must achieve a 75% competency level or higher.

IV. Results: A description of the actual results of overall student performance gathered from the summative assessment(s). (see II.b.)

- National Dental Hygiene Board Examination – 100% pass
- Northeast Regional Board Examination – 100% pass
- Ohio State Law Test – 100% pass

Feedback received from employers is excellent. There is currently a demand for dental hygienists in the Dayton and surrounding areas. Student placement rates remain at 100%. Entry-level dental hygienists can expect very attractive salary and benefit packages as a result of the current need. Due to SCC's reputation for a quality dental hygiene educational program and low tuition, many students commute from outside the Montgomery County area including Columbus, Cincinnati, and Indiana.

In order to better assess the employer satisfaction of our graduates, a new system of evaluation was implemented in 2003, in cooperation with IPR. Graduates are emailed and called by the dental hygiene office manager and asked a series of standard questions. Additionally, the graduate is asked their employers name and address. The employer information is then given to IPR, to ensure that every employer has the ability to evaluate our graduates. Response rates for 2003 were 100% on the graduate survey and employer survey, where previous years the response rate was approximately 11%.

The Advisory Committee consists of representatives from the Dayton Dental Hygienists' Association; the Dayton Dental Society; The Gem City Pharmaceutical, Medical, Dental Group; program faculty; program alumni; Allied Health counselors; and the Dean of Allied Health. This committee serves an invaluable function by providing the program direction, advice, and information on a regular basis. The chairperson of the advisory committee, Ann Naber, is currently the immediate past president of the American Dental Hygienists' Association. We are fortunate to have her guidance and expertise.

The dental hygiene department admits 35 students into the first year of the program. Traditionally, attrition statistics demonstrate approximately a 30-33% loss of students by the end of the first year. This loss has been due to academic failure, personal problems, financial problems, unrealistic expectations, etc. The department has been involved in initiatives to increase student retention utilizing various strategies that include flexible course offerings; mentoring; the establishment of learning communities; and collaborative recruitment initiatives with local associations. The attrition rate continues to fluctuate from 20-33%. Unfortunately, some students who meet admissions criteria are not prepared for the academic rigor and time commitment required in the dental hygiene program.

- V. Analysis/Actions:** From analysis of your summative assessment results, do you plan to or have you made any adjustments to your program learning outcomes, methodologies, curriculum, etc.? If yes, describe. If no, explain.

The DEH Department Curriculum Committee reviews the curriculum on an annual basis and has developed a curriculum management plan to guide the process. Results of the most recent reviews include:

- Developed renovation plans for program expansion including a patient simulation lab, extended dental hygiene clinic and dental radiology lab.
- ******Implemented curricular revisions to revise the scope and sequence of the dental hygiene curriculum.
- Incorporated case-study development project in DEH 212/250.
- Provided HIPAA training for faculty, staff, and students including clinical protocols.

*** Due to the number of students on our waiting list, the department decided to “grandfather” students already on the waiting list; meaning they were not required to take the new prerequisites, although they were highly encouraged. Because students have chosen not to take the new curriculum prerequisites, we are still having high attrition rates from students not being prepared for our heavy, science-based curriculum. We expect this to continue for the next two years, until the waiting list includes students who were required to take the new curriculum prerequisites.*

Future plans include:

- Expand and renovation of dental hygiene facilities.
- Draft a certificate program in *Dental Assisting*.
- Revise clinical evaluation system to reflect competency-based focus.

VI. General Education: Are you using any tool(s) to assess any of the three primary general education outcomes * (communication, thinking, values/citizenship)? If so, describe.

DEH is currently using the writing and oral communication checklist in many courses and plans to incorporate the critical thinking checklist as well. Each student participates in case-study development with actual and simulated patients, prepares both oral and written reports, and presents to their cohort groups and the faculty.

- a. Where within the major do you assess written communication? Describe the assessment method(s) used. Describe the assessment results if available.

Writing skills are reinforced throughout the curriculum with abstracts and research papers required in many DEH courses. In addition, project proposals, treatment plans, case studies, and grant-writing assignments are required and are an integral part of the dental hygiene curriculum.

- b. Where within the major do you assess oral communication? Describe the assessment method(s) used. Describe the assessment results if available.

Oral skills are reinforced and assessed through such activities as table clinics and poster presentations; video taped presentations by students; oral presentations; communication and oral/nutritional health counseling with patients; participation in community health events and service-learning assignments; oral examinations; and in professional association activities.

- c. Where within the major do you assess thinking? Thinking might include inventing new problems, seeing relationships and/or implications, respecting other approaches, demonstrating clarity and/or integrity, or recognizing assumptions. Describe the assessment method(s) used. Describe assessment results if available.

The development of critical thinking skills is an integral component of the dental hygiene curriculum. The Dental Hygiene National Board Examination has incorporated case-based questions that require application of knowledge and critical thinking abilities. Students routinely individualize therapy based on patient needs, compliance, etc. Case studies that include varied ethical, social, clinical, etc. implications are used throughout the program. Faculty members routinely utilize coaching techniques to assist students in the development of critical thinking skills.

- d. Where within the major do you assess values/citizenship/community? These activities might include behaviors, perspective, awareness, responsibility, teamwork, ethical/professional standards, service-learning or community participation. Describe the assessment method(s) used. Describe assessment results if available.

The American Dental Hygienists' Association Code of Ethics has been incorporated in the introduction course using cases to address various topics including professionalism. This code is utilized throughout the curriculum to guide students and faculty in ethical decision-making.

Service-learning has become a significant component of the DEH curriculum. Mrs. Sheranita Hemphill has incorporated many opportunities in her community dental health courses (DEH 235 and 236) that have involved students in various learning experiences in the Dayton community. Students design and implement projects with the Dayton City Schools and numerous other community agencies.

VII. **Recommendations/Comments:**

**SINCLAIR COMMUNITY COLLEGE
DENTAL HYGIENE PROGRAM CURRICULUM**

ADMISSION REQUIREMENT: Must be taken prior to entering First Quarter

		CR. HRS.
DEH 120	Dental Terminology	1
BIO 141	Principles of A & P I	4
BIO 142	Principles of A & P II	4
ALH 104	Allied Health Informatics	2
		11

FIRST QUARTER

CHE 122	Bio-Chemistry	4
BIO 143	Principles of A & P III	4
DEH 103	Head and Neck Anatomy	4
DEH 105	Introduction to Dental Hygiene	3
ENG 111	English Composition I	3
		18

SECOND QUARTER

BIO 205	Microbiology	4
ENG 112	English Composition II	3
DEH 111	Pre-Clinical Dental Hygiene I	4
DEH 155	Oral Histology, Embryology and Pathology	4
DEH 157	Research Methodology	2
		17

THIRD QUARTER

ALH 220	Pathophysiology	4
DEH 112	Pre-Clinical Dental Hygiene II	4
DEH 135	Dental Radiology	4
DEH 156	Dental Hygiene Research Project	1
DEH 220	Medical Emergencies in the Dental Office	2
DEH 106	Nutrition and Oral Health	3
		18

FOURTH QUARTER

DEH 113	Clinical Dental Hygiene I - D Term	3
DEH 165	Computer Applications in Dentistry	1
DEH 215	Periodontics I - D Term	2
MAT 101	Elementary Algebra	4
PSY 119	General Psychology	5
		15

FIFTH QUARTER

DEH 125	Dental Materials	3
DEH 210	Drug Therapy in Dentistry	2
DEH 211	Clinical Dental Hygiene II	6
DEH 235	Community Dental Health I	3
		14

SIXTH QUARTER

COM 211	Effective Speaking	3
DEH 212	Clinical Dental Hygiene III	6
DEH 250	Periodontics II	2
DEH 253	Pain Control in Dentistry	1
SOC 111	General Sociology I	3
		15

SEVENTH QUARTER

DEH 213	Clinical Dental Hygiene IV	6
DEH 236	Community Dental Health II	2
DEH 255	Dental Hygiene Practice	2
	Humanities	3
		13

TOTAL 110 Cr. Hrs. 13

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*Certification in healthcare provider Basic Life Support, as approved by the American Heart Association, must be completed prior to admission into DEH 220. ALH 140 provides such certification.