MIDDLESEX COMMUNITY COLLEGE

ACADEMIC PROGRAM REVIEW

FOR CAREER PROGRAMS
THAT CONDUCT SELF-STUDIES
FOR NATIONAL PROFESSIONAL ACCREDITING BOARDS

Dental Hygiene

2010 – 2011

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> Note: This program review is an addendum to the Program Self-Study Report that is required for National Accreditation. The report of the Accrediting Board is included in this addendum. The complete Program Self-Study Report is on file with the Division Dean.

**Section I: Summary of Self-Study/Introduction to the Program Review
This is an opportunity to provide background or contextual information, set goals for the program review and/or include any other introductory information that the committee believes will be helpful to the reader. Include information about previously completed program reviews, such as findings, improvements, and unfinished items. Also include a description of the findings in the most recent accreditation self-study, and, if available, the recommendations and/or responses from the accrediting board.**

The Dental Hygiene program at Middlesex Community College began in 1974 on the Bedford campus and admitted its first class of dental hygiene students pursuing an Associate in Science Degree in Dental Hygiene. In 1992, the program moved to the Lowell campus in the Health, Science and Technology Center on Middle Street. Classes are admitted to the full-time day program in September of each academic year.

The Dental Hygiene program achieved initial accreditation from the American Dental Association (ADA), Commission on Dental Accreditation (CODA) in 1974 and has been continually accredited since. The most recent accreditation site visit was in December 2009, with a full 7 year accreditation granted. The dental hygiene faculty prepared an extensive self-study, based upon the standards of CODA. In CODA's 2009 final accreditation report, the dental hygiene program successfully met all standards with no recommendations. The next accreditation will be in the year 2016.

Refer to Appendix   *American Dental Association, Commission on Dental Accreditation 2009 report for Middlesex Community College Dental Programs*

Section II: Mission and Goals

1. State the mission of the program. Please indicate if the mission statement is new or has been significantly revised as part of a prior program review process.

The Dental Hygiene Program reviewed its mission in AY 2009. There were no major revisions made to the mission statement.

MIDDLESEX COMMUNITY COLLEGE DENTAL HYGIENE MISSION:

In conjunction with the mission of MCC, the mission of the Associate Degree Program at Middlesex Community College is to provide educational opportunities for Dental Hygiene students in a manner consistent with the college's mission, and to operate an educational program and clinical facility that is patient centered and strives for excellence.

We are committed to a policy of comprehensive Dental Hygiene care for all patients at our facility. We strive to maintain a quality educational experience for a diverse student population. We seek to establish an active learning environment that responds to the needs of each student and to provide an atmosphere in which opportunities for maximum achievement are provided. We are ultimately committed to preparing competent dental hygiene professionals, capable of providing quality dental hygiene care in a variety of settings within a changing health care system and a culturally diverse society.

2. Discuss the program's work over the last five years towards achievement of its goals and initiatives as they support the College's Strategic Plan described in the program's annual report and reported in the Academic and Student Affairs database. Link these goals and initiatives to relevant NEASC recommendations generated from MCC's 2004-05 accreditations self study.

The Dental Hygiene department sets annual goals and objectives which are tied to the College's Strategic Plan. The program faculty assesses, plans, and implements goals and initiatives annually. Work spaces such as the Dental Intranet site, monthly department meetings, the program's Curriculum review and Policy committees together with annual full and part time dental hygiene faculty meetings as well as ongoing meetings of the department chair with the Dean of Health Careers provide for team development, alignment, inclusion, mentoring, and decision making for change to a credible and well maintained dental hygiene program.

Refer to Page 2 "Program goals and objectives in the separate Dental Hygiene Faculty Manual
Refer to Page 37-39 "Assessment Plan" in the separate Dental Hygiene Faculty Manual

Section II: Program Mission and Goals

The tables on the following pages present our initiatives and outcomes and their relevancy to the institution's Strategic Plan and to NEASC recommendations generated from the MCC's 2004-05 accreditations self study.

Section II: Mission and Goals				
Year	**Dental Hygiene Program Goals & Annual Objectives**	**Strategic Plan**	**NEASC**	**Outcome**
2007-08				
	Goal #2: Maintain a competent dental hygiene faculty and staff and provide a supportive and collaborative educational environment. Objective: Faculty training in online course development	Supports Goal 1&3 Assure Institutional effectiveness and accountability and Increase access to higher education and support academic excellence.	Student services	All full time faculty have received on line course development (OCD training. As a result, there are more learning options for students both online/hybrid dental hygiene courses
	Goal # 4 Maintain a contemporary curriculum that emphasizes student-centered teaching and learning. Objective: Evaluate curriculum for alignment with institutional goals and learning outcomes	Supports Goal 1&3 Assure Institutional effectiveness and accountability and support academic excellence.	Planning and Evaluation	Dental hygiene courses were studied and aligned to the institutional goals and ISLO's.
	Goal #2 Maintain a competent dental hygiene faculty and staff and provide a supportive and collaborative educational environment. Objective: Begin planning for 2008 self study and 2009 American Dental Association (ADA) Commission on Dental Accreditation (CODA) site visit	Supports Goal 1&3 Assure Institutional effectiveness and accountability and support academic excellence.	Planning and Evaluation	A program planning and orientation meeting for the self study was conducted for all full and part-time faculty and staff.
	Goal # 4 Maintain a contemporary curriculum that emphasizes student-centered teaching and learning. Objective: Curriculum review of dental hygiene courses	Supports Goal 3 Assure Institutional effectiveness and accountability and support academic excellence	Planning and Evaluation	The program's Curriculum Committee reviewed designated course syllabus for alignment to program competencies, goals, ISLO, and external accrediting standards. Recommendations by the committee were presented to course faculty and Revisions were made to course syllabus.

Section II: Mission and Goals				
Year	**Dental Hygiene Program Goals & Annual Objectives**	**Strategic Plan College Goals**	**NEASC**	**Outcome**
2008-09				
	Goal # 4 Maintain a contemporary curriculum that emphasizes student-centered teaching and learning. Objective: Implement alternative delivery strategies for Dental hygiene courses	Supports Goal 1&3 Increase access to higher education and support academic excellence and success for all students. Objective 1.1, 1.2	Student services	The program increased the number of courses offered as hybrid or online to meet the needs of our student population
	Program goals #1-#8 Objective: Conduct self study for the ADA Commission on Dental Accreditation	Supports Goal 3 Assure Institutional effectiveness and accountability	Planning and evaluation	A program wide comprehensive self study was accomplished in preparation for the ADA Commission on Dental Accreditation site visit in December of 2009.
2009-10				
	Goals #1-8 Objective: Plan and conduct an external accreditation dental programs site visit. by the ADA Commission on Dental Accreditation.	Supports Goal 1,2 3	Planning and evaluation	An accurate and thorough self study was conducted and submitted to CODA on September 3 2009.A successful accreditation site visit by the ADA was conducted in December 2009.
	Goal # 4 Maintain a contemporary curriculum that emphasizes student-centered teaching and learning. Objective: Assess the need for expanding CEU course offerings for registered dental hygienist's	Supports Goal 2,3 Identify and respond to current and emerging educational, workforce, civic, environmental, multi-cultural, and global awareness needs of the communities in the service region and institutional effectiveness	Student services	An alumni needs assessment was conducted. Data collected from MCC DH alumni indicated interest for on campus CEU courses. Planning, organizing and proposing courses will follow.
	Goal #4 Maintain a contemporary curriculum that emphasizes student-centered teaching and learning. Objective: Evaluate the Portfolio Assessment	Supports Goal 1, 3 Increase access to higher education and support academic excellence and success for all students. Objective1.1, 3.1	Planning and evaluation	Faculty and students evaluated the first completed two year cycle of the Portfolio Assessment by way of survey and focus meetings. As a result, additional student info sessions were scheduled, greater student decision making was initiated and revision to the peer review process was made.

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Section II: Mission and Goals				
Year	**Dental Hygiene Program Goals & Annual Objectives**	**Strategic Plan College Goals**	**NEASC**	**Outcome**
2010-11	Goals #1-8 Objective: Prepare an Institutional Program Review	Supports Goal 3: Assure Institutional effectiveness and accountability Objective 3.1	Planning and evaluation	Expected outcome: Submit an accurate and thorough program review document and achieve a successful institutional Program review
	Goal #3 Provide support to enhance the student's ability to successfully complete the program Objective: Revise the role of the dental hygiene clinical advisor	Supports Goal 1: Increase access to higher education and support academic excellence and success for all students. Objective 1.2	Student services	Expected outcome: Faculty teams will study and propose modifications to the role of clinic advisor to improve student support and to increase participation of part time faculty in the assessment process.
	Goal # 4 Maintain a contemporary curriculum that emphasizes student-centered teaching and learning Objective: Plan for a dental hygiene CEU course offering for the spring 2011	Supports Goal 2 Identify and respond to current and emerging educational, workforce, civic, environmental, multi-cultural, and global awareness needs of the communities in the service region. Objective 2.1	Student services	Expected outcome: Work with faculty to offer at minimum one CEU course in the Spring 2011
	Goal # 1 Prepare graduates to meet the program competencies and requirements for dental hygiene licensure. Objective: Maintain pass rates for the National Dental Hygiene Board Exam (NBDHE)	Goal 3 Assure Institutional effectiveness and accountability Objective 3.1	Planning and evaluation	Expected outcome: Through faculty advising and mentoring the program will maintain a 95% pass rate on the National Dental Hygiene Board Exam NBDHE Pass Rates 2008: 100% 2009: 97% 2010: 92.5%

Program Student Learning Outcomes (PSLOs)

3. Identify your Program Student Learning Outcomes

The Dental Hygiene Program has twelve student competencies. (PSLO's)
At the end of the two year dental hygiene program, dental hygiene students will demonstrate competency in:

1. promoting the values of oral and general health with respect for diversity

2. assessing, planning, implementing and evaluating community oral health programs in a variety of settings.

3. providing and documenting dental hygiene care to diverse populations based on the scientific literature and according to accepted standards of care.

4. collecting and analyzing assessment data

5. utilizing comprehensive assessment data and problem solving strategies in determining a dental hygiene diagnosis.

6. collaborating with the patient/client to establish realistic goals and   treatment strategies which facilitate optimal oral health

7. providing treatment that includes preventive and therapeutic services directed by the care plan

8. evaluating the extent to which treatment goals were achieved.

9. applying self assessment skills to prepare for lifelong learning

10. representing and supporting the profession through service activities and affiliations with professional organizations

11. applying ethical, legal and regulatory concepts to the provision and/or support of oral health care services

12. communicating and interacting effectively with patients, colleagues and other professionals

4. Please provide your program's timeline for ongoing, annual assessment of its PSLOs.

The program assesses its student competencies (PSLOs) annually. The competencies are assessed using direct and indirect methods. The ultimate goal is to comprehensively prepare competent individuals in the discipline. Some measures the program uses to assess competency include but are not limited to:

- o Student progress and promotion meetings
- o Clinical Case Exam outcomes
- o Summative evaluations in courses
- o Service learning
- o Alumni survey
- o Employer survey
- o Exit meetings with students
- o Faculty survey of PSLOs

Refer to Page 20 ""Evaluation of Dental Hygiene Courses related to Competencies" in the separate Dental Hygiene Faculty Manual
Refer to Appendix   *Alumni Survey, Faculty survey*

5. If applicable, discuss any changes you have made to your PSLOs and/or the ways in which the courses in the program support those PSLOs since your last program review.

There have been no changes to the program's PLSOs since the last program review. A curriculum review committee has been established since the last program review whose charge is to evaluate congruency of courses and competencies (PSLOs.)

6. Map the way in which your program provides opportunities for students to progress towards achievement of each Program Student Learning Outcome, by noting in which courses the outcomes are Introduced (I), Developed (D), and where students are expected to demonstrate Competency (C). (Note: at the Developing and Competency levels, PSLOs should be reflected, directly or indirectly within the course outcomes.)
The Dental Hygiene Program provides opportunities for students to progress towards achievement of each program competency. A curriculum map demonstrates where competencies are introduced, developed, and where demonstration of competency is expected.

Section III: Student Learning Outcomes

Each Dental hygiene program course syllabus lists the terminal objectives and supporting competency (PSLSOs). The following exhibit presents the curriculum map and related levels of competencies
.
Refer to Page 26-35 "Competency Table #2 in the separate Dental Hygiene Faculty Manual

7. **Does Curriculum Map I suggest a need to make changes to the sequencing of opportunities for students to develop and achieve any PSLO within the program? If so, please explain.**

At this time, the program's sequencing of opportunities for students to acquire the knowledge, attitudes, and skills that are basic to the role of the entry level registered dental hygienist and achieve PSLO's is effective.

8. **Please discuss how the program will support faculty to align their course student learning outcomes with program and institutional student learning outcomes**

The Dental Hygiene program has a curriculum committee whose charge is to conduct ongoing assessment of DH course syllabi. Using a course review instrument, reviewers evaluate course syllabi to accreditation standards from our external accrediting body, the ADA Commission on Dental Accreditation, curriculum guidelines of the American Dental Education Association (ADEA), program competencies and institutional student learning outcomes (ISLO). In addition, the curriculum committee reviews the recommendations and a committee liaison then meets with the course instructor to share the committees report. The curriculum committee offers assistance in curriculum development and alignment to PSLOs and ISLOs. Additionally, faculty participate in aligning courses/ objectives to the institutional student learning outcomes at department and sub committee meetings.

Refer to Appendix   *Course Review Instrument*
Refer to Appendix   *Table of Program courses and ISLO's*

8a **List the PSLO evaluated in this program review.**

This year, the faculty assessed achievement of Dental Hygiene Program Competency #12; *Communicating and interacting effectively with patients, colleagues and other professionals.*

9. **Please provide examples of representative course student learning outcomes that include or embed this PSLO from course syllabi where competency of the PSLO is expected.**

The following table illustrates the program courses and objectives which provide support for achievement of program competency *#12. "Communicating and interacting effectively with patients, colleagues and other professionals".*

Course	*Semester*	*Course Learning Outcomes*
DHY 200 Concepts in Dental Hygiene III	Fall, second year	1. Define evidence based practice and demonstrate critical thinking when accessing and assessing the quality of information found in scientific and public literature and use to design and present materials for a poster session 2. Demonstrate the ability to plan, organize, prepare, implement, and critique two lesson plans on dental health effectively utilizing a variety of teaching methods and tools.
DHY 250 Concepts in Dental Hygiene IV	Spring, second year	1. Engage in communication with colleagues by participation in course activities and networking sessions
DHY 251 Dental Hygiene Clinical Practice IV	Spring, second year	1.Demonstrate critical thinking skills, communication and civic responsibility
DHY 253 Community Health	Spring, second year	1*.* Demonstrate critical thinking skills, communication and civic responsibility

10. **Describe the process by which this Program Student Learning Outcome was assessed for Competency. Include in your description:**

o   **Which courses contributed evidence of student learning and achievement?**
The Dental Hygiene department assessed its student competency in written communication (program competency #12) by using evidence from a second year dental hygiene theory course, DHY 200 Concepts in Dental Hygiene III.

o   **Which assignments/projects/exams/activities within those courses generated the evidence?**
The evidence identified from this course was a research paper.

o   **How was a sample selected from the full sets of contributed evidence?**
A random sampling of nine research papers was collected and duplicated. The student's identification was deleted from the samples.

o   **What criteria were used to assess student learning and achievement?** The faculty engaged in a discussion of the program review and the evaluation process of the communication PSLO. At a department meeting, faculty calibrated on the communication rubric and discussed the assessment of competency #12.

- o **Which faculty members assessed the evidence, and how representative are they of the faculty teaching in the program?**
  All full time dental hygiene faculty participated in the assessment of this competency. Each faculty was asked to read 5 research papers and assess student achievement of the communication competency by way of a grading rubric.

- o **How you created a block of time to conduct the assessments of student learning**
  Faculty agreed to read and assess the research papers on their own rather than at a department meeting. Faculty had two weeks to read the pieces of evidence and submit a rubric for each paper. Each paper was graded by five faculty members.

  Refer to Appendix   *DHY 200 Grading Rubric*

11. What did your program learn about student achievement of this PSLO?

The program learned the strengths and potential weaknesses of student's achievement of the Communication PSLO. 96.4% of the papers evaluated by faculty mentors exceeded the minimum competency level of 75%. (one paper did not meet competency) The scale to assess student competency of communication is based on the following benchmarks: highly effective, effective, and potentially ineffective and in effective.

The terminal objectives of the Communication rubric include:

1. Ideas are well formulated and clarified
2. Appropriate language is employed
3. Organization is clear , logical and suitable for the assignment
4. Standard grammar and punctuation are utilized

The majority of the writing samples met the communication PSLO as evidenced by ratings of highly effective or effective. The result of objective #2, 3, and 4 presents a need for improvement. Objective one scored 93%, objective two was rated at 75%, objective three scored 87% and the fourth objective was rated at 80% Research and study needed to improve the outcome include;
  - o prerequisite admission objectives
  - o number of students entering the program having completed English I and II
  - o writing and reading college placement scores
  - o quantity and quality of program assessments in written communication
  - o Student referral process to academic support
  - o program interaction with academic support around in-services
  - o collaboration with writing coaches on the quality and clarity of the grading rubric.

Section III: Student Learning Outcomes

The table below illustrates the scores from the assessment work by objective

Percentage Responses	Highly Effective	Effective	Potentially Ineffective	Ineffective
Ideas are well Formulated and clarified (N=45)	49%	44%	7%	
Appropriate language is employed	31%	44%	22%	2%
Organization is clear and suitable for the assignment	20%	67%	13%	
Grammar and punctuation are utilized	38%	42%	18%	2%

12. What curricular and/or instructional changes are planned within the program as a result of this assessment work (if any)?

Written communication is an integral part of the study and practice of dental hygiene. Dental hygiene students must demonstrate minimum competency in written, oral and electronic communication with peers, faculty and patients. As a result of this assessment the program will,

1. Review and make suggestions around communication to the program document, "Standard Skills of a dental hygienist "included in admission materials and the college catalog.

2. Discuss the frequency of and the mechanisms for assessing first year dental hygiene student writing assignments.

3. Discuss how the program supports and assesses student writing and oral communication at department and curriculum meetings.

4. Study the feasibility of a learning community with the English program and/or Academic Support.

5. Provide support for faculty planning to or currently implementing active learning activities and assessments around written communication.

6. Share outcomes of the Communication PSLO assessment with Academic Support and discuss opportunities for in-service sessions and/or other supportive mechanisms for teaching and learning.

7. Initiate dialogue with the Admissions and Recruitment office around the TEAS test. The TEAS test identifies strengths and weaknesses in basic information needed to successfully complete a health careers program. The test is divided into four parts; reading, math, science, english, and language usage. It is a useful admission tool that is often used in nursing programs and recently in a few dental hygiene programs.

8. Share and collaborate with on campus colleagues in various disciplines as well as other dental hygiene programs around communication skills assessment.

9. Discuss the E- tutoring support system available on the library website.

10. Identify dental hygiene students early on that may benefit from academic support for program success by implementing a writing sample exercise at the new student orientation or by the second week of class.

11. Conduct a general discussion of the program faculty's evaluation of the evidence to enhance student learning and success of the communication PSLO.

Institutional Student Learning Outcomes

Knowledge and Skills
The MCC graduate will use knowledge acquired at MCC as a foundation for continued study and/or practical application.
- Freshman and sophomore foundation for transfer
- Professional skills for career track (degree or certificate)

Critical Thinking
The MCC graduate will demonstrate an ability to understand, interpret and analyze information in order to engage in critical thinking and problem-solving.
- Knowledge Acquisition, Comprehension, Application, Analysis, Synthesis, and Evaluation
- Quantitative and Scientific Reasoning
- Knowledge Integration, Reasoning, and Problem-Solving Across Disciplines

Communication
The MCC graduate will communicate, use information and employ technology effectively.
- Effective Written, Presentation and Numeracy Skills, AND
- Information Literacy and Technology Fluency

Global Perspectives
The MCC graduate will communicate an understanding of the world from a global perspective.
- Historical, Political, Economic and Social
- Scientific and Environmental
- Aesthetic Appreciation and Creativity

Social Responsibility
The MCC graduate will demonstrate social responsibility both within and outside of the classroom.
- Multicultural and Diversity Awareness
- Ethics, Values, and Social Justice
- Citizenship and Civic Engagement

Personal and Professional Development
The MCC graduate will demonstrate the capacity for on-going personal and professional development.
- Independent and Life-long Learning
- Professionalism and Accountability
- Collaboration
- Managing Responsibilities and Adapting to Change
- Initiative and Self-Advocacy
- Self Assessment

13. **Please provide your program's timeline for ongoing, annual assessment of the college's ISLOs as appropriate**.

Year	MCC ISLO
2010-11	Communication ISLO
2011-12	Social Responsibility/ Personal and Professional Development
2012-13	Global perspectives
2013-14	Knowledge and skills
2014-15	Critical Thinking
2015-16	Communication
2016-17	Social Responsibility

14. **If applicable, discuss any changes you have made to your program's support of MCC's ISLOs since your last program review.**

In 2008, the program incorporated a student portfolio assessment as a program requirement. The portfolio is a culmination of the student's journey in dental hygiene and also serves as a mechanism for measuring program competencies. In addition, the portfolio provides evidence for program reviews, external accreditation reports and ISLO assessments. This assessment was created by Donis Tatro, Professor of Dental Hygiene as a result of a sabbatical to research student portfolios. As a result, a faculty calibration manual, student tutorial, rubrics, calibration sessions for faculty and student info sessions were developed and implemented. The portfolio includes the students self assessment of achieving competency (s) and choices of evidence demonstrating attainment of program competency (s). Initially the program selected the competency and evidence for each semester, however as a result of student input, the competency and evidence may be determined by the student. The table on the next page reflects how the student portfolio supports the college's communication, personal and professional development and critical thinking ISLO. A sample of a student portfolio will be available as an onsite exhibit.

Section III: Student Learning Outcomes

MCC ISLOs	Program improvements to support ISLOs
Communication	Implementation of the Student portfolio assessment to expand support of written and information literacy skills
Personal and Professional development	Implementation of the Student portfolio to support student learning, self assessment and peer assessment and achievement of program competencies.
Critical thinking	Expansion of a semester III research project where students recreate a health related poster to an alternative target population.

The exhibits listed below will be available on site during the Program review.

Refer to Exhibit: Faculty Portfolio Tutorial
                    Student Portfolio Tutorial
                    Dental Hygiene student portfolio
                    Qualitative and Quantitative Research of the student portfolio

15. As appropriate, map the way in which your program provides opportunities for students to progress towards achievement of MCC's Institutional Student Learning Outcomes, by noting in which courses outcomes are **Introduced (I), Developed (D)**, and where students are expected to demonstrate **Competency (C). (Note: at the Developing and Competency levels, PSLOs should be reflected, directly or indirectly within the course outcomes.)**

Curriculum Map II:
   Program Opportunities for Student Progress toward ISLOs

First Year Courses		DHY 100	DHY 101	DHY 103	DHY 104	DHY 105	DHY 150	DHY 151	DHY 152	DHY 153	
	Knowledge & Skills	I	I	I	I	I	I/D	I/D	I	I	
	Critical Thinking	I	I	I	I	I/D	I/D	I/D	I	I/D	
	Communication		I			I/D	I/D	I/D	I/D		
	Global Perspectives										
	Social Responsibility		I				I/D	I/D			
	Personal, Professional Development		I			I	I/D	I/D			

Second Year courses		DHY 200	DHY 201	DHY 202	DHY 203	DHY 204	DHY 250	DHY 251	DHY 252	DHY 253	
	Knowledge & Skills	D/C	D/C	D/C	D/C	I/D		C		C	
	Critical Thinking	D/C	D/C	D/C	D/C	D/C		C	C	C	
	Communication	D/C	D/C	D/C	D/C	D/C	C	C	C	C	
	Global Perspectives								C		
	Social Responsibility						C	C	C		
	Personal, Professional Development	D/C	D/C	D/C	D/C	D	C		C	D/C	

16. Does Curriculum Map II suggest a need to make changes to the sequencing of opportunities for students to develop and achieve any ISLO within the program? If so, please explain. Generally, the sequencing of opportunities for students to develop and achieve the ISLO's is effective. Student competency of the global perspectives ISLO is supported by the program's required courses; PSY101, SOC 101, and DHY 252 Community Health. The department will investigate opportunities for students to demonstrate the global perspective ISLO in the curriculum.

Section III: Student Learning Outcomes

The Dental Hygiene department studied and assessed the following ISLO.
The MCC graduate will communicate, use information and employ technology effectively.

17.   **Please provide examples of representative course student learning outcomes that include or embed this ISLO from course syllabi where competency of the ISLO is expected.**

Course	*Semester*	*Course objectives supporting the Communication ISLO*
DHY 200 Concepts in Dental Hygiene III	*Fall, second year*	*1.* Define evidence based practice and demonstrate critical thinking when accessing and assessing the quality of information found in scientific and public literature and use to design and present materials for a poster session and research paper.
DHY 250 Concepts in Dental Hygiene IV	*Spring, second year*	1. Engage in communication with colleagues by participation in course activities and networking sessions
DHY 251 Dental Hygiene Clinical Practice IV	*Spring, second year*	1. Demonstrate critical thinking skills, communication and civic responsibility
DHY 253 Community Health	*Spring, second year*	1. Demonstrate critical thinking skills, communication and civic responsibility

Refer to Appendix   DHY 200 grading rubric
Refer to Appendix   DHY 251 case exam rubric

18 - 20 Referring to Curriculum Map II, describe the process by which this Institutional Student Learning Outcome was assessed for Competency.

o   **Which courses contributed evidence of student learning and achievement?**
The Dental Hygiene department assessed its student competency in written communication (program competency #12) by using evidence from a second year dental hygiene theory course, DHY 200 Concepts in Dental Hygiene III. See page 15-18 of this program review

Section IV: Instructional Support

1. **Discuss the adequacy of the staffing level in the program to teach and advise students enrolled in the program.**

At this time the dental hygiene department has 8.5 full time faculty and 14 part time faculty for 80 students. The department has one unfilled full time faculty position. Additionally, one full time faculty member will retire at the end of this AY 2010-11. The department will be challenged in meeting its annual goals and objectives, and PSLO's with two unfilled faculty positions.

2. **How adequate and appropriate are program facilities and equipment? Please be specific about current deficiencies or projected needs.**

The department chair and Dean of Health Careers meet regularly to assess facility and equipment needs. The Division Dean is supportive of the program's needs. As a result of a Health Resources and Service Administration (HRSA) grant, we will
o   install two sterilization centers in our on campus clinic
o   replace dental radiography units
o   replace a scantron unit
o   purchase portable dental chairs for service learning and community outreach
o   purchase intraoral cameras to meet workforce needs
o   replace clinic equipment such as power driven scalers and operator stools that support student learning and preparation for the workforce.

In the near future, the dental hygiene clinic will need new dental chairs, and cabinetry. The thin clients at each dental unit will also need to be replaced. Evaluation and planning for air filtration and ventilation for the dental materials lab due to use of stone is needed.

3. **Describe any professional development needs of program faculty or staff.**

Ongoing professional development opportunities and funding for faculty around assessment, leadership training, educational methodology, clinical teaching methodology, and test construction and grading. Ongoing Banner, Dentrix and computer skill training for support staff would be helpful.

The Massachusetts Dental hygiene practice acts have been reviewed and revised by the Massachusetts Board of Registration in Dentistry in 2011 to include the use of non-cutting lasers. Faculty training in non cutting lasers and training will be explored.

Support faculty to serve as a site visitor for the American Dental Association Commission on Dental Accreditation.

Support faculty to serve as a site examiner for the Northeast Regional Clinical Board examination.

Funding for in-services for all faculty around writing progress evaluations, clinical methodology, and learning options such as PBL, Socratic questioning and reasoning.

Section IV: Instructional Support

4. Describe the sources of program funding. Are the funds adequate to support the program? Is the current use of funds effective to realize program goals? Does the program leadership have input into the program budget?

Program funds generally come from the college. The Middlesex Foundation has provided generous grants to the department to purchase equipment. Perkins funds has also supported research for our Program's Portfolio project and for faculty to attend American Dental Education Association's conferences

In 2010, the dental hygiene program was a grantee of an earmarked fund from the US Dept. of Health and Human Services, Health Resources and Services Administration (HRSA) grant. The grant will allow for new sterilization centers for our on campus dental hygiene clinic, digital radiographic equipment, radiology training manikins, clinician stools, and a host of other equipment to enhance the delivery of dental hygiene education to support student learning, meet program goals and support the institution's goals.

The dept chair, faculty and staff have opportunity to share in program budget planning during department meetings or with the Dean of Health Careers who has an open door policy.

Section V: Institutional Data

The Institutional Research Office will provide a significant portion of the data. Your committee is encouraged to request additional relevant information from Institutional Research and to develop and conduct alternative assessments as well. Some examples of assessments that the committee may choose to implement are student focus groups and/or student surveys. Input from relevant internal groups such as Advising, Admissions, and/or connected departments will also be necessary. Please include a copy of the data from Institutional Research and all committee-developed surveys or focus questions in the Appendix of the review.

1.   **Please note important trends, patterns and issues that emerge as you examine data from Institutional Research office, including:**
     a. **program enrollment data**
     b. **reading, writing and math placement data**
     c. **demographic data**
     d. **enrollment status data**
     e. **course completion data (by method of course offering)**
     f. **academic progress data**
     g. **retention data**
     h. **transfer data**

   The data from the Institutional Research office was reviewed and is included in this report. Highlights from this data include:

   o Program Enrollment Data: The data supports that the number of applications from 2006 – 2010 has remained relatively consistent. A onetime decrease in the number of qualified candidates occurred from 2005 to 2006 as a result of a change in dental hygiene admission requirements. The CPT Reading score was increased from 68 to 75 in 2006. In addition, completion of Anatomy and Physiology I and II and College Chemistry I with a grade of B or higher was required for admission in 2006. Since then there has been a gradual increase in the average number of qualified applicants over the last 4 years.

      o   2005:   271 qualified
      o   2006:   70   qualified
      o   2007:   72   qualified
      o   2008:   78   qualified
      o   2009:   69   qualified
      o   2010:   63   qualified
      o   2011:   73   qualified

Section V: Institutional Data

○ Dental Hygiene Reading, Writing, and Math Placement Data
Data on writing: data indicates that most students placed into English Comp I. Those students who placed into basic writing or basic writing ESL completed the necessary course work which was accepted and placed the student into English Comp I. In these cases this course work was accepted in place of making the student retake the writing CPT

	Dental Hygiene					
New Student Writing Data	AY 2010	AY 2009	AY 2008	AY 2007	AY 2006	AY 2005
English Fundamentals	0	0	0	0	0	0
Basic Writing	4	6	2	2	10	10
Basic Writing (ESL)	0	0	1	1	0	0
English Comp I	36	33	37	39	32	32
Total	40	39	40	42	42	42

Data on reading placement indicates students met the requisite for admission into the program

	Dental Hygiene					
New Student Reading Data	AY 2010	AY 2009	AY 2008	AY 2007	AY 2006	AY 2005
Required Reading	0	0	0	0	0	0
Recommended Reading	0	0	0	0	1	2
No Reading Course	40	39	42	42	41	40
Total	40	39	40	42	42	42

Data on math placement indicates most students placed at or above Algebra II (MAT 080). Those students who placed between MAT 070 and fundamentals completed the necessary course work that was accepted and placed into MAT 080.

	Dental Hygiene					
New Student Math Data	AY 2010	AY 2009	AY 2008	AY 2007	AY 2006	AY 2005
Fundamentals of Math	1	1	1	4	1	3
Fundamentals/Algebra	0	0	0	0	0	0
Algebra I MAT 070	1	1	1	0	3	4
Algebra II MAT 080	23	25	24	23	19	18
Intermediate Algebra MAT 100	9	5	12	8	13	13
Precal for Bus (MAT	0	0	2	4	1	1
Precalc for Science (MAT 185)	0	0	0	0	0	0
Precalc I (MAT 189)	3	4	2	0	0	0
Precalc II (MAT 190)	0	0	0	1	1	0

Calc I for Sci (MAT 290)	0	0	0	0	0	0
ALGEBRA I/II (MAT 075)	3	3	2	2	4	3
Total	40	39	42	42	42	42

Section V: Institutional Data

o Demographic Data:
   The data around gender over the last six years reflects an average of 3.8% male students and 94.6% female students. Data around race and ethnicity indicates an increase for asian and black students and a decrease for white students.

Dental Hygiene Students by Gender	Fall 2010	Fall 2009	Fall 2008	Fall 2007	Fall 2006	Fall 2005
Female	67	77	74	78	76	67
Male	5	3	5	5	2	3
Total	72	80	79	83	78	70
% Female	93.1%	96.3%	93.7%	94%	97.4%	95.7%
% Male	7.0%	4.0%	6.3%	6.0%	2.6%	4.3%

Dental Hygiene Students by Race/Ethnicity	Fall 2010	Fall 2009	Fall 2008	Fall 2007	Fall 2006	Fall 2005
Asian	4	9	9	9	8	
Black	1	0	2	1	1	
Hispanic	3	5	4	8	5	
Native American	1	0	0	0	1	
Native Hawaiian or other Pacific	2	0	0	0	0	
Two or more races	0	0	0	0	0	
White	60	67	60	64	62	
Non Resident	0	1	1	0	1	
Unreported	1	0	3	1	0	
	72	82	79	83	78	

o GPA Data : The average six year GPA for first year dental hygiene students at the end of the fall semester is 3.23. The average GPA for dental hygiene students at graduation is 3.41. Program student GPA is illustrated in the table below

Year of graduation	GPA average of program freshman at the end of fall semester	GPA average of DH students at graduation
2010	3.31	3.42
2009	3.33	3.48

2008	3.34	3.42
2007	3.21	3.46
2006	3.24	3.39
2005	2.97	3.28

Section V: Institutional Data

o Total Student Head Count Enrollment: The data supports the total student head count. There has been a small incremental increase from 2005-2007 and a slight decrease in 2008. It is anticipated that enrollments will remain consistent.

o Course completion rates: Data on course completion rate indicates that the first semester of the first year in the program has the highest attrition rate. The first semester course, DHY101 Dental Hygiene clinical Practice I, has the highest attrition rate, which is to be expected as that is the course where the student often discovers he/she does not have the ability or interest in dental hygiene that they thought they did.

o Retention Data: Data on retention rates are in the 90th percentile for the second, third and fourth semester. The average retention rate at the end of the first year, first semester is 88%.

2. **Please comment on significant information that emerges from the Student Transfer and Employment Follow-up data from Institutional Research Office and/or your Program/Department Records.**
The 2005-2010 data from the Institutional Research Office indicates graduates who responded to the survey are employed in the profession.
The Dental Hygiene program collects data from graduates on employment through a graduate survey distributed 6 months after graduation. This year's alumni survey targeted the class of 2010, 2008, 2006, and 2004. Recent anecdotal information around local opportunities for full time dental hygiene employment indicates fewer job openings due to current economic challenges. The data below is from a self selecting population that chose to respond to this survey.

Class	% reporting	% Employed	Full-time	Part -time	Unemployed
2010	33%	%	61% <8>	31% <4>	7% <1>
2008	15%	100%	40% <2>	60% <3>	0
2006	0%	0%	0	0	0
2004	0%	0%	0	0	0

3. Please identify labor/market trends that may impact current and future graduates of this program, based on input from advisory boards, focus group meetings with recent graduates, and national and regional data. Some possible sources for such data include:

- http://online.onetcenter.org (use "Find Occupations")

- http://lmi2.detma.org/lmi/FPlmiforms1.asp

Section V: Institutional Data

It is predicted that the interest in dental hygiene will continue to rise according to recent nation-wide predictors. The O*NET database of occupational information is maintained by the National Center for O*NET Development, on behalf of the U.S. Department of Labor, Employment and Training Administration (USDOL/ETA). According to this site dental hygiene is a bright outlook occupation is expected to grow much faster than the average over 2008-2018.

The Executive Office of Labor and Workforce Development (EOLWD) reports that most dental hygienists work part time and that job prospects are expected to rise as people are living longer lives and that more firms offer dental insurance.

Anecdotal evidence of the job market for dental hygienists in the Merrimack Valley area indicate that there are fewer job opportunities for dental hygienists and it takes 6months to a year for new graduates to secure employment as a dental hygienist.

4. **Please summarize findings from student surveys, student focus groups, and/or other types of surveys and focus groups the Committee chose to undertake.**

The dental Hygiene department seeks input from alumni, employers of our graduates, and current students. Each group chooses to respond to the related survey. MCC Dental Hygiene alumni are surveyed in the fall of each year. The alumni survey seeks input in several areas. Two of these areas include program competency and employment.

Data from Fall 2010 Program Alumni Survey indicates alumni
- o   are very satisfied with the program
- o   show increased interest in earning a bachelor degree
- o   show interested in attending MCC sponsored dental hygiene continuing education courses
- o   are very well prepared for employment
- o   were successful in meeting the program competencies and that program competencies are very important for employment.

   Alumni who reported working part time indicate:
- o   they would prefer working full time but opportunities are limited.

- the average hourly salary range for 2010 graduates is between $32 -$38
- there were no benefits offered to dental hygiene alumni in part time employment
- dentists are performing dental hygiene services due to the economy and more conservative dental treatment planning.

Refer to Appendix: *Alumni Survey*

Section V: Institutional Data

Data from Fall 2010 Employer Survey

Data from sixteen employers was collected. Employers are asked to rate how important each competency is for a dental hygienist in their practice and how well prepared the dental hygienist performs each of these competencies. .

Employer data indicates that all competencies are important skills for a dental hygienist in his/her practice. Competency #12 was rated very important to the employer and that our graduates were prepared/very well prepared in demonstrating this skill.

Employer rating Program Competency 12	Important for the profession	Employee very well prepared
	16 <16>	16 <16>

Refer to Appendix: *Employer Survey*

Data from Spring 2010 Freshman Dental Hygiene Exit survey

Data indicates freshman students were adequately/extensively prepared to meet the objectives of DHY 151 Dental Hygiene Clinical Practice II. Student response around lesson planning presented valuable information and this objective has been modified to reflect an introductory level.

# students reporting DHY 151 objectives were met	Important for the profession
28 <32>	10 <32>

Refer to Appendix: *Freshman Exit Survey*

Data from Fall 2010 DH program College Service survey
Twenty nine second year students were asked to respond to their use of college services.
The table below indicates the number of students who engaged in college services

College Service	# of DH students <29>
Health Service	4

Health Insurance	9
Personal Counseling	0
Disability Support	0
Study skill	0
Writing lab	3
Research Librarian services	9
Financial aid	16

Data from DH Student Portfolio Survey

The Portfolio Assessment was incorporated in the Fall 2008. Data indicates that assignments selected as evidence for attaining competency will be drawn from a previous semester to allow for a more retrospective analysis of the work. This will offer a truer reflective process and will be less cumbersome for the student to implement.

Section VI: Program Analysis

Additional Curricular Opportunities:

1. **Describe any Learning Communities that are an integral part of this program**.

   Due to the nature of the dental hygiene program, students work closely with peers and faculty on a daily basis. Although a formal learning community does not exist, the program's rigorous nature and location of its faculty offices, clinic and classrooms affords a learning community like environment.

2. **Comment on experiential/ work-based learning opportunities in the program (i.e., co-op, internships, service learning).   Discuss how the content of the experience relates to course credit. How do you calculate the number of contact hours required in relationship to the credit awarded? What percent of students participate in each of these activities? Indicate any problem being faced in incorporating work-based learning.**

   Service Learning is infused throughout the dental hygiene curriculum. All dental hygiene students participate in Service Learning. Each service learning activity is related to either a didactic or clinical course. The first semester service learning is a required assignment. The second and third semester activities are one time course required presentations. The fourth semester service learning experience is a semester long rotation of three hours per week. The table on the next page, illustrates the program's service learning activities of dental hygiene students

   Refer to Appendix   *Community Partner Survey*

Dental Hygiene Service Learning Activities		
Semester, course	**Place**	**Service Learning Activity**
Fall, First semester student DHY 101 (clinic I)	Reading assignments and reflection	3 reading assignments and one written reflection
Spring, First semester student DHY 151 (clinic II)	Lowell Middle School	1- Oral presentation info session around oral health 1- reflection on experience
Fall, Second year student DHY 200	Lowell Public schools Billerica Public Schools	2- Oral presentations on dental health
Spring second year student DHY 251 (clinic III)	Middlesex Community College Dental Hygiene Clinic	Oral presentation of research paper
Spring second year students DHY 251 (clinic IV)	At five week intervals, students rotate through three community partners (Pediatric, Geriatric and special populations)	o Provide dental hygiene oral health instruction and screenings through community partnerships with Nursing care facilities, Lowell Public Schools and area preschools. o Provide dental hygiene services for residents/patients at Tewksbury Hospital 1.0 course credit is awarded for 3 hours of community outreach per week to DHY 251

3.   Referring to the data supplied by Institutional Research, along with any other data available to the Program, comment on the role of developmental courses in the program.   Do significant numbers of students in the program take developmental courses? What conclusions are you able to draw about the impact of these courses on students' preparation levels?

Students in our program typically do not take developmental courses.

4. **Discuss any new strategies being implemented within your program to support student success. This could include efforts to establish consistent expectations for students, scaffolding learning within sequential courses, inclusion of experiential learning, collaborations with Academic Support Services and/or other support areas, curriculum revision, pedagogical sharing and innovation, etc. Please comment on the availability and adequacy of any support services being utilized.**

Collaboration with Academic Support Services around learning styles, time management, study skills, test taking strategies for first year dental hygiene students.

a. At our program's freshman June orientation and registration meeting, Academic Support presented a learning style inventory session for students.

b. The department chair meets with readmitted students through the semester

c. Exit interviews with first year and graduating students

d. The program reserves each Monday from 12:30-1:45 for student /faculty personal and professional development opportunities.

Historically, student withdrawal and/or failure rates tend to be highest in the first year first semester. Faculty mentors, academic advisors, and in some cases Trio advisors, and counselors support our students. To complement these supports the department will initiate dialogue with academic support around the possibility of establishing dental hygiene tutoring services.

The program and admission and recruitment office, communicate regularly. Communication is a professional skill which dental hygiene students must achieve competency in by the time they graduate. To support this competency, a study of admission pre requisites, college support and programmatic initiatives is suggested. Admission criteria of local and long distance dental hygiene programs, research of preadmission assessments like the TEAS test as well as other supports will be studied.

5.   **Discuss ways in which your program ensures consistency in student learning and achievement for students taking courses in the classroom, through SPS, and online.**

All of our full time and one part time faculty have received OCD training. The faculty assignments are such that one faculty teaches all sections of a didactic course. There are two exceptions. In these instances faculty regularly meet to prepare course materials, assessments, assignments, and objectives. Faculty members who teach an on campus and online section of a course have the same course objectives. Online students may attend on campus sessions and/or meet with the course faculty if further clarification is needed

6.   **Discuss ways in which your program ensures consistency in student learning and achievement for students taking courses during the day and in the evening.**

All dental hygiene courses are offered during the day. In the spring semester, Dental Hygiene Clinical Practice II, a first year clinical experience, is offered on Tuesday/Thursday evenings from 4:00pm-7:00pm. Faculty who teach in these clinic also teach during the day.

7.   **In the event that there are admissions criteria for acceptance into the program, describe the rationale and process for establishing and reviewing the admission criteria. Do current criteria produce a pool of students who are adequately prepared to succeed in the program?**

The dental hygiene program is selective and has admission criteria to support student success once in the program. The dental hygiene admission packet is reviewed by the program faculty. Last year, the faculty at a department meeting, discussed the required Clinic observation criteria of a dental hygienist. This year the curriculum committee will look at the components of the student admission essay.

At this time the current admission criteria produce a pool of applicants who are generally prepared to succeed in the program. Areas for further study in the admissions criteria include:
- TEAS (Test of Essential Academic Skills) testing
- Electronic/computer proficiency
- Completed CORI and SORI
- Standard skills of a dental hygienist
- Observational report and objectives

Section VI: Program Analysis

External Perspectives:

8. **LOCAL: Based on a review of other college catalogs, list the colleges in our general area that have similar programs and comment on significant differences from the ones we currently offer that bear further exploration.**

A review of three other Massachusetts Community Colleges in the area indicated similar programs and requirements to the MCC Dental Hygiene Program. Two of the programs Quinsigamond Community College (QCC) and Mt.Wachusett requires pre-admission testing using the TEAS test. One program, Mt. Wachusett Community College Community College requires those applicants whose native language is not English and who have not completed grades K-12 or a bachelor's degree in the U.S. to take the Test of English as a Foreign Language (TOEFL). In one program Springfield Community College the SAT is suggested and priority is given to applicants who have completed college-level courses of Anatomy & Physiology 1 and 2, Biochemistry, Microbiology, English Comp I, General Psychology, Introduction to Sociology, and Fundamentals of Oral Communication

College	Admissions	Program requirement	Costs
Middlesex Community College Bedford, Lowell, MA	Three pre-req courses prior to admission with a minimum grade of B, an essay, dental hygiene observation, and three health recommendations. 2.0 GPA required	Minimum Dental hygiene course grade for promotion: C	$160
Mt Wachusett Community College Gardner,MA	Pre-req courses required prior to admission with a minimum grade of C+. TEAS test required Letter of recommendation not required TOEFL may be required	Minimum Dental hygiene course grade for promotion: C+	$ 180 A ten dollar nonrefundable application fee is required with application
Quinsigamond Community College Worcester, MA	Required TEAS scores • English: 70% • Reading: 75% • Math: 50% • Science: 55% GPA of 3.0 **or** equivalent in high school **or** 3.0 in college with minimum of 10 credits **or** 550 Battery Average on GED. Pre requisite Science courses must be earned within two attempts.	Minimum dental hygiene course grade for promotion: C	$152.00/credit
Springfield Community College Springfield, MA	SAT is suggested but not required Programmatic technical standards must be read and signed and returned to the admissions office prior to the first day of classes.	Minimum dental hygiene course grade for promotion: C	$247/credit

9. **NATIONAL BEST PRACTICE:** Based upon either the committee's knowledge of or research on institutions beyond our geographical area that have exemplary programs or are known for their 'best practices,' comment on significant similarities or differences at MCC and identify areas that bear further exploration.

A review of Pierce College, Washington State and Idaho State University websites identified some similarities to the MCC dental hygiene program. The major difference was the other programs have a slightly higher selection process with one of the programs requiring a computer proficiency requirement, a space relation and health science reasoning test and one program requiring a critical thinking reasoning assessment and interview. Pierce College requires a CORI clearance prior to admission.

College	Admissions	Program	Competency/Outcomes
Idaho State	• Critical thinking/reasoning assessment and Interview process • If student transcript shows withdrawal or repeat of required pre req courses due to grade then the admission points will be prorated. • No dental office observation required • Requires purchase of magnification loupes	Dental Hygiene BS degree • Local anesthesia course is offered in the first year second semester • Comprehensive program website	• Program competency and goals similar
Pierce College	• SAT,ACT or Math placement requirement • Computer proficiency requirement • Space relation test • Writing sample test • Health Sciences reasoning test *www.insightassessment.com/9 test-hsrt.html* • Criminal History Clearance required prior to admission • Detailed dental observation requirement	Dental Hygiene AS degree • Local anesthesia course is offered in the first year second semester • Comprehensive program website	• Study Competency statement table and alignment to institutional abilities. http://www.pierce.ctc.edu/dept/denthyg/ref/files/dh-competencies.pdf

10. **What role do external parties such as advisory groups, alumni, practicum/intern supervisors, corporations/agencies, professional groups, outside licensure/accrediting bodies, etc. play with regard to decision-making in your program?**

The dental hygiene program has several external parties that assist us in decision making in our program. The following table lists the external parties who play a consultative role in decision-making in our program.

External Parties	Input to decision making
Dental Advisory Board	The Dental Advisory meets annually with Program directors and Division Dean. Dental Advisory Board members are invited to recommend agenda items. Each dental program reports on goals, initiatives and outcomes. The Dental Advisory board assists the programs in securing equipment needs, provides employment trends, identifies strengths and weaknesses of the practicing RDH as a mechanism for program improvement.
ADA CODA	The American Dental Association (ADA) CODA is our external accrediting body. Our curriculum and outcomes directly align with the standards set forth by CODA. In addition, financial, facility, admission, faculty and administration are included in the self study report that is prepared every seventh year. Joan
Massachusetts Board of Registration in Dentistry	State practice acts are reviewed and adopted by the state. New practices are discussed at department meetings for inclusion in the curriculum.
Alumni	Alumni are invited to provide feedback on employment, learning, satisfaction with our program, achievement of program competencies, student support services, clinical advising by way of survey. The dept. chair collects and analyzes the data and shares with the faculty, includes results in an annual report to the Dean of Health Careers and uses the results for faculty calibration at full faculty meetings. Return rate has improved the past two years.
Employers	Employers are given the opportunity to provide feedback to the program around our program competencies. Return rate of these surveys has improved this year.
Patients	Patient surveys are distributed to patients on completion of treatment. Survey results are collected and analyzed and are used in our clinical curriculum review and presented at full faculty meetings.
Community Outreach Partners	Partners are offered the opportunity to provide feedback on our students and faculty and experience by way of a survey.

Section VI: Program Analysis

11. **Discuss ways in which existing connections and collaborations between your program and other departments, programs, and areas at the college have impacted decision-making in your program. Identify potential connections and collaborations that would enhance your program.**

Existing Connections

Admissions: the program collaborates with Admissions and Recruitment with reading and assessing applicant essays. The grading rubric addresses how well the student responds to two required.

Science: The department shares outcomes of national board results with science faculty. The board exam includes content in microbiology, anatomy and Physiology and Chemistry.

Service Learning: The College's Service Learning Coordinator has been supportive in providing contacts to support outreach opportunities for students. In addition the Nursing Program and Academy of Health Programs have provided support in this area.

Library: The college research librarians provide support to faculty and students in the area of accessing, assessing, evaluating research.

Academic Support Services: AS has been a strong supporter of our faculty and student academic support needs. As a result we have expanded personal and professional development opportunities for our students in the areas of time management, test taking, and study skills.

Potential Connections:

English Department: collaborate on objectives and rubric of writing assignments.

Mount IDA College, Newton, MA for the purpose of a transfer articulation agreement
Mass College of Pharmacy for the purpose of a transfer articulation agreement

Section VII: Program Evaluation Summary and Action Plan

A.   **Program Strengths (Bulleted List with reference to the question(s) numbers in the program review where this strength is explained.)**

Section I   Introduction
- American Dent al Association, Commission on Dental Accreditation evaluation of MCC Dent al Hygiene Program
  Section I Introduction   Q. 1

Section II   Mission and goals
- Program Assessment Plan
  Section II Mission and Goals   Q. 2

 Section III   Student Learning Outcomes
- Measurable Program Competencies
   Section III Student Learning Outcomes   Q 3
- Effective assessment plan of PSLOs
  Section III Student Learning Outcomes   Q 4
- A highly engaged program curriculum review committee
  Section III Student Learning Outcomes Q 8
- Organized departmental process for evaluating PSLOs/ISLO
  Section III Student Learning Outcomes   Q 10
- Program Student Portfolio to support PSLOs and ISLOs
   Section III Student Learning Outcomes Q. 14

Section IV   Instructional support
- Dept. of Health and Human Services, Health Resources and Services Administration (HRSA) grant award to the department for program improvement
   Section IV Instructional support Q.2, 4

Section V   Institutional Data
- Increase in enrolment of male students
  Section V Institutional data   Q. 1

Section VI   Program Analysis
- Service Learning Opportunities
  Section VI Program Analysis   Q. 2
- Enrichment period for program student and faculty personal and professional development
   Section VI Program Analysis   Q. 4
- All fulltime faculty are online course development trained and offer either hybrid/online sections
   Section VI Program Analysis   Q. 5
- Wide scope of stakeholders
   Section VI Program Analysis   Q. 10
- Active connections within the college
  Section VI Program Analysis   Q. 11

Section VII Program Evaluation Summary and Action Plan

Program Needs	Proposed Plans for Improvement (Bulleted list of suggestions.)	Financial Needs to Make Improvements	Proposed Timelines for Implementation
Section I Introduction Q1 o Support faculty to serve as a Site visitor to the ADA o Support faculty to serve as external site examiners for the Northeast Regional Board of Examiners	Collaborate with Dean of Health Careers and identify or support interested faculty	**May require off campus visits and course support**	**As needed**
Section II Program Mission and goals Q2 o Increase engagement of and support for part time faculty	Plan Drop in sessions for faculty	**n/a**	**Ongoing**
Section III Student Learning Outcomes Q 11,12 o Plan and implement student writing in-service o Discuss feasibility of a common dept. rubric	o Collaborate with Academic support and writing coaches o Collaborate at dept meeting on a common rubric for writing	n/a	Three - six months
o Study % of students completing ENG 101,102 with a grade of B prior to entering the program	Collaborate with data services to request this information		
o Discussion at dept/curric meetings on program writing and oral communication assignments and assessments	o Evaluate frequency of writing assignments o Evaluate grading rubrics o Discuss in-services for faculty and students around writing and oral communication		
o Study and consider piloting the TEAS (Test of Essential Academic Skills) test for admission	Collaborate with MCC Nursing, Admissions, Dean of Health Careers	n/a	Fall 2012
Section III Student Learning Outcomes Q 14 o Portfolio Assessment	Review annual survey data on the Portfolio, develop and present revisions to faculty for program improvement,	Stipend of 10 hours/year	Pending financial approval
Section IV Instructional Support Q1 o One Full time faculty position	Request one new full time faculty for Fall 2011.		Fall 2011
Section IV Instructional Support Q3 Support ongoing professional development of clinical teaching pedagogy with experts	o Collaborate with the Dean o Search for funding o Identify experts o Support mini learning sessions for clinic faculty	$1000 every two years.	

Section VII Program Evaluation Summary and Action Plan

Program Needs (Reference the question in the program review where this need is explained.)	Proposed Plans for Improvement (Bulleted list of suggestions.)	Financial Needs to Make Improvements	Proposed Timelines for Implementation
Section IV Instructional Support Q3 Ongoing Banner, Dentrix and computer skill training for support staff	Discuss training with college	n/a	Summer 2011
Section V Institutional Data Q1 Improve first year student retention rate	○ Collaborate with MCC Nursing and admissions ○ Study the objectives of the TEAS Test ○ Investigate the opportunity of a support program with the ATI.(TEAS test) ○ Continue dialogue with TRIO and Academic support around DH tutor	n/a	One year to study
Section V Institutional Data Q 2, 4 Increase outreach to alumni	○ Dialogue with Dean ○ Consult with alumni office for email and addresses of alumni	n/a	six months
Section VI Program Analysis Q 3 Tracking of DH students who took developmental courses and program m completion rates	○ Discuss with Dean of Health Careers, Institutional Data office And Admissions	n/a	
Section VI Program Analysis Q 8 Collect data from DH programs around the TEAS test and affect on program completion rates	○ Discuss with program directors of QCC and Mt.Wachusett CC Dent al hygiene programs ○ Discuss with Dean and admissions.		
Section VI Program Analysis Q 9 Study Pierce College and Idaho University program goals and competencies, Admission requirements.	○ Continue study of program goals for program improvement and congruency with ADA standards, ISLOs, competencies. ○ Study and consider admission criteria	n/a	Ongoing
Section VI Program Analysis Q 11 Articulation agreements	○ Continue collaboration with MT IDA college ○ Initiate contact with Mass College of Pharmacy	n/a	Ongoing

In 2009, the MCC Dental hygiene program received full accreditation without recommendations for a seven year period from the American Dental Association Commission on Dental Accreditation. The next ADA accreditation for the program will be in 2016.

Refer to Appendix: *American Dental Association, Commission on Dental Accreditation 2009 report for Middlesex Community College Dental Programs*

Appendix

1. American Dental Association, Commission on Dental Accreditation 2009 report for Middlesex Community College Dental Programs

2. Alumni Survey

3. Faculty survey

4. DHY 200 Grading Rubric

5. Course Review Instrument

6. Table of Program courses and ISLO's

7. DHY 200 Grading Rubric

8. DHY 251 Case exam rubric

9. Employer survey

10. Freshman exit survey

11. Community Partner Survey

Course Review Instrument

Middlesex Community College Dental Hygiene Department Curriculum Committee Course Review Instrument

Course Title: Reviewer: Date:

Question			Details
1. Do the course objectives support the program competencies as stated in the syllabus?	**Yes**	No	Explain:
2. Do the competencies listed in the syllabus match the program competency table?	Yes	No	Explain:
3. Is assessment accurately reflected in the *Course Documents* and in the *Competency Evaluation table*?	Yes	No	Explain:
4. Is there a program competency not indicated that needs to be included to ensure that students reach competency? **For which objective?**	Yes	No	Explain:
5. Is it indicated which objective supports which competency?	Yes	No	Explain:
6. Are there any objectives which do not have competencies listed?	Yes	No	
7. Does a new objective need to be written to support a competency?	Yes	No	Explain:
8. Does the topical outline support the objective? (IE: Is content of objective included in the outline?) include documentation in the topical outline	Yes	No	Explain:
9. Does the course support Institutional student learning outcomes?	Yes	No	Explain:
10. Is there a course goal listed? If present is the goal supported by the course objectives? If present is the goal support the program competencies?	Yes Yes Yes	No No No	Explain:
11. Is there alignment of ADEA's objectives with course objectives	Yes	No	Explain