MIDDLESEX COMMUNITY COLLEGE

ACADEMIC PROGRAM REVIEW

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

Nursing
_____
Name of Health Career Program

2008 – 2009

Program Review Committee

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MIDDLESEX COMMUNITY COLLEGE

<u>Academic Program Review</u>

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<u>**Academic Program Review**</u>

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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 Dean of Health Careers, Kathleen Sweeney.

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.

Minimally, please provide the following information:
- **The state of the program, including information about previously completed program reviews, such as relevant findings, improvements, and unfinished items.**
- **A description of the findings in the current accreditation self-study.**
- **If available, the recommendations and/or responses from the accrediting board.**

The Nursing Program at Middlesex Community College began in 1972 on the Bedford Campus, admitting its first class of full-time students pursuing an Associate in Science Degree in Nursing. It has experienced steady growth since then, adding a second site at Lowell General Hospital in 1982 in order to meet the needs of a larger community. In 1995 the two campuses were consolidated into one at the Health, Science and Technology Center on the Lowell Campus. Classes are admitted to the full-time program option in both September and January of each academic year.

In the Fall of 2003 a part-time evening-weekend option was initiated, with classes being admitted once a year in the Fall. This option has been very successful. In the Fall of 2005 Middlesex entered into a collaborative educational partnership with the Lahey Clinic in Burlington to offer qualified Lahey employees an opportunity to participate in the part-time option. As part of this relationship, students in the part-time program option have use of a newly developed skills lab at Lahey in addition to the Lowell Nursing Learning Center. Students also have the option of taking other pre- and co-requisite courses at the Lahey facilities.

Nursing students reflect the diversity of the Middlesex Community College community and averages 23-25% minority students. Many are employed and have dependent children. About 50 percent receive financial aid. There are currently over 200 students in the program; with approximately 120-125 students in the full-time program option and 80-85 students in the part-time program option. The program graduates about 80 students a year.

The Nursing Program achieved National League for Nursing Accrediting Commission (NLNAC) accreditation in 1980 and has been continually accredited since. The most recent accreditation visit was in the Fall of 2006, with full 8 year accreditation granted in Spring, 2007. In preparation for the accreditation visit, the Nursing Department wrote an extensive self-study, based upon the NLNAC accreditation criteria.

In their written report, the NLNAC site visitors identified a strong nursing leader with exemplary administrative support as a strength of the program. Areas identified as needing development included identifying and implementing strategies to recruit and retain academically and experientially qualified faculty in addition to facilitating the timely completion of graduate studies for those faculty who do not currently hold a master's in nursing degree.

Section II: Mission and Goals
State the mission/philosophy of the program. Please align the program's mission/philosophy and goals to the institutional mission and goals. Table format is encouraged.

The philosophy of the nursing program is included in the self study report, (Appendix B, p. 203). In Fall 2007, the nursing program amended the program philosophy to incorporate the concept of evidence-based practice with the curriculum concept of nursing process. The following is the amended purpose and philosophy:

STATEMENT OF PURPOSE:
The Associate Degree Registered Nurse Program at Middlesex Community College serves the learner, the nursing profession, and the communities of Middlesex County and surrounding areas.

The learner is provided with educational experiences to develop individual potential and to become a caring, contributing, accountable member of the nursing profession.

A graduate of the program is capable of assuming an entry level nursing position and will be eligible for licensure as a registered nurse. Health needs of a diverse community population are addressed through the preparation of individuals who are capable of practicing nursing in a variety of health care settings.

STATEMENT OF PHILOSOPHY:
The philosophy of the nursing program is in accordance with the mission of Middlesex Community College. The faculty is committed to offering educational opportunities to a diverse student population.

We believe that each person is a dynamic interdependent being with dignity and worth whose individuality and humanity is to be nurtured, supported, and respected throughout life. Each person has basic human needs which require fulfillment. The individuality of each person influences the manner in which these needs are met.

We believe health and well-being*,* a positive and dynamic state, is a human right possessing high priority in the value structure of our society. Health is influenced by each person's culture and belief system, developmental stage, and ability to cope with changes within his or her environment. Environment encompasses all elements external to and interacting with the individual to influence his or her state of health. Nursing assists individuals to promote, maintain, and restore health and to cope with disability and with terminal illness throughout the lifespan in collaboration with the individual, family, and significant others in the community. Nurses collaborate with individuals and families to maintain self-dignity while coping with disability and terminal illness.

Nursing is a unique discipline with its own body of knowledge. Nursing integrates principles derived from the biological, psychosocial and physical sciences as well as the use of current technology.

We believe that caring is an essential element in the art of nursing. Caring integrates bio-physical knowledge with knowledge of human behavior to generate or promote health and to assist those who are ill. Caring expresses itself through compassion, competence, confidence, conscience, commitment and comportment. Caring (or caritas) is extended to students as part of the educational process.

The nursing process is the vehicle through which nursing care is implemented. Nurses function in diverse roles to assist each person and family and significant others in meeting health care needs. The Faculty believe further that evidence derived from research guides the nurse in implementation of the nursing process.

We believe learning to be an active, interactive and lifelong process involving cognitive, affective, and psychomotor activities, which can be measured by observable changes in behavior. Learning experiences are most effective when planned in a simple to complex progression with recognition of the individual differences of the learner. Learning is facilitated in a supportive atmosphere where teacher and learner collaborate in order to meet the learning needs of the individual. This collaboration fosters open communication and shared responsibility for learning. The learner must develop critical thinking and interpersonal skills to solve problems, to make nursing judgments, to teach and to counsel based upon sound nursing rationale and scientific evidence-based research.

The faculty endorses principles of adult learning and believes flexibility in planning and implementing learning experiences is crucial to successful learning. Various teaching strategies are used in order to accommodate individual learning needs.

Nursing education on the associate degree level is best accomplished within the setting of a community college where students are able to interact with learners in other disciplines. In this environment, nursing courses are complemented by course offerings in the humanities and sciences, providing a knowledge base essential to the students' understanding of individuals and their needs. We believe that provision of service to the community is a crucial element of nursing education and is an integral part of the program of learning.

The nurse prepared at the associate degree level has acquired the knowledge, attitudes, and skills that are basic to the role of the entry level registered nurse. This role encompasses professional behaviors, communication, assessment, clinical decision making, caring interventions, teaching and learning, collaboration, and managing care.* The associate degree nurse practices in an ethically accountable and legally responsible manner within a variety of health care settings.

We are committed to the concept of career mobility through educational articulation. We believe the graduate will recognize the importance of life long learning and will assume responsibility for continuing education to increase personal and professional growth.

*Based upon the Education Outcomes of Associate Degree Nursing Programs: Roles and Competencies, NLN 2000.

The amended program philosophy was compared to the college mission for congruency (see table). The amended changes to the philosophy did not impact the congruency with the college mission statement.

Comparison of Middlesex Community College Mission Statement and Nursing Program Philosophy

MCC MISSION STATEMENT	NURSING PROGRAM PHILOSOPHY
"…a progressive and dynamic learning community, committed to providing educational programs and services that support personal growth and economic opportunity for its diverse student population."	"the faculty is committed to offering educational opportunities to a diverse student population."
"… the College provides excellence in teaching, personal attention, and extensive opportunities for exploration and growth."	"The faculty endorses principles of adult learning and believes flexibility in planning and implementing learning experiences is crucial to successful learning. Various teaching strategies are used in order to accommodate individual learning needs."
"Closely linked to the fabric of the community, … foster a culture of civic engagement and responsive workforce development."	"Nursing assists individuals to promote, maintain, and restore health … in collaboration with the individual, family, and significant others in the community … believe that provision of service to the community is a crucial element of nursing education and is an integral part of the program of learning."
"The College's state-of-the-art programs … respond to student and community needs, providing a strong foundation for college transfer, employment, professional development and lifelong learning."	"We are committed to the concept of career mobility through educational articulation. We believe the graduate will recognize the importance of lifelong learning and will assume responsibility for continuing education to increase personal and professional growth."

The goals for the nursing program are also congruent with the college goals, as evidenced by the comparison of the program goals for the upcoming year to the college goals (see table).

Comparison of Nursing Program Annual Goals to Institutional Goals

2009-10 Nursing Program Annual Goals/Objectives	Institutional Goal/Objective	Expected Outcome
1. Implement revised curriculum, beginning with Fundamentals of Nursing in Fall 2009.	Goal 1, Objective 1.2 (supporting academic excellence; improve first-time NCLEX pass rates)	New curriculum will be implemented in first 2 nursing courses, including new pharmacology course in Spring 2010.
2. Implement and evaluate effectiveness of the ATI curriculum support package for the nursing students.	Goal 1, Objective 1.2 (supporting academic excellence; success for all students - improve first-time NCLEX pass rates)	Improvement in retention rates, course completion and first-time NCLEX pass rates.
3. Complete development of a nursing program webpage to provide information about the program to the public.	Goal 1, Objective 1.1 (fostering welcoming environment; increasing access to higher education)	Nursing program webpage will be operational by end of the fall semester.
4. Continue with the implementation of simulation technology in the nursing skills lab, including training additional faculty in use.	Goal 1, Objective 1.2 (supporting academic excellence; success for all students)	Simulation technology will be utilized in every clinical nursing course to enhance clinical learning and critical thinking.
5. Continue assessment of NCLEX first-time pass rates to determine trends or other factors impacting on student success.	Goal 1, Objective 1.2 (supporting academic excellence; success for all students - improve first-time NCLEX pass rates)	Additional trends and factors identified are shared with the faculty to determine how to improve student success on NCLEX.
6. Complete assessment of Student Learning Outcome: Communication (Oral & Numeracy) at the program level.	Goal 3, Objective 3.1 (assessment of student learning outcomes)	Assessment data will be used to review efficacy of curriculum in meeting communication student learning outcome.

Section III: Program Analysis

    A. **Please note important trends, patterns and issues that emerge through the enrollment, academic progress and retention data. (Data from Institutional Research Office)**

The data from the Institutional Research Office was reviewed and compared to data collected by the program. There were some inconsistencies in the data, related in part to the uniqueness of the part-time evening/weekend program option, which does not have all students enrolling in a course in the fall semester. Highlights from the data are:

- Application Trends: The data supports information gathered by the program that the number of applications has trended down in recent years until Fall 2008. However additional data collected by the program indicated the number of qualified candidates had been gradually increasing over the same period of time:

  - 2004: 145 qualified
  - 2005: 198 qualified
  - 2006: 199 qualified
  - 2007: 181 qualified
  - 2008: 214 qualified

  It is predicted the interest in nursing will continue to rise due to the current economic times and the public perception of nursing as a recession-proof profession. This is in spite of current employment challenges for new graduates (see next section, p. 10).

- Placement Tests: The data reflects there is a small percentage of students who do not meet the minimum writing, reading and math placement requirements for the program, but this is most likely due to the inclusion of students enrolled in NUR 107 (Math Review for Nurses) which is taken by students not yet accepted in the Nursing program.

- Total Student Head Count Enrollment: Again, this data includes students enrolled in NUR 107. Additionally, it does not include students enrolled in NUR 151/152 in the part-time program, as those students enroll in the course in the summer semester and continue the course through the fall. Data collected by the program indicates actual fall enrollments in the program as:

  - Fall 2004: 138
  - Fall 2005: 185
  - Fall 2006: 204
  - Fall 2007: 207
  - Fall 2008: 205

  The main reason for the increase from Fall 2004 to Fall 2006 was the full implementation of the part-time evening weekend program. It is anticipated that

enrollments will remain stable at around 205 total students (120-125 in the day program option and 80-85 in the part-time evening weekend program option).

- Data on race & ethnicity is consistent with data collected by the program and generally reflects the percentage of minority students in the college. The percentage of minority students admitted to the program averaged 25% over the 5 year period, ranging from 23-28%. Of encouragement is the retention rate of minorities has been improving, as evidenced by the data below:

	% Minority		Retention Rates		
	at admission to program	remaining at end of year	Total	Caucasian	Minority
AY 04-05	28%	25%	87%	91%	76%
AY 05-06	25%	21%	86%	91%	71%
AY 06-07	24%	21%	86%	89%	75%
AY 07-08	25%	22%	87%	90%	77%
AY 08-09	23%	24%	85%	84%	88%

- Data on course completion rates indicates that the first semester course has the highest attrition rate, which is to be expected as that is the course where students often discover they do not have the ability or interest in nursing that they thought they did.

B. **Please comment on significant information that emerges from the Student Transfer and Employment Follow-up data. (Data from Institutional Research Office and Department Records)**

The Nursing program collects data from graduates on employment through a graduate survey distributed about 8 months after graduation. This survey averages about a 65-70% return rate. Although the majority of students gain employment in appropriate settings, recent results support anecdotal information that graduates are having increased difficulty in gaining employment due to the current economic challenges.

Class	% Employed		Employed		Employment Setting			
	w/in 6 months	At time of survey	Full-time	Part-time	Hospital/Acute Care		Rehab/ Long Term Care	Other
					MedSurg	Other		
1/05	100%	100%	78%	22%	64%	18%	18%	0%
5/05	73%	100%	93%	7%	60%	7%	27%	7%
1/06	88%	100%	89%	11%	71%	6%	12%	6%
5/06	70%	96%	48%	22%	63%	21%	13%	4%
1/07	94%	94%	73%	20%	47%	0%	40%	14%
5/07	79%	88%	66%	24%	69%	28%	3%	0%
1/08	74%	84%	63%	25%	56%	6%	38%	0%
5/08	72%	83%	80%	7%	53%	23%	20%	3%

C. **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 program requirements to the MCC nursing program. The major difference was the other programs are all selective admissions with two of the program requiring pre-admission testing of the TEAS (Test of Academic Skills) in addition to college placement tests. Middlesex is also the only program that offers admissions in the day program twice a year.

College	Program Options	Admissions	Program Grade requirements	Additional Costs
Middlesex Community College	FT days (2 years) PT Eve/Weekend (2yrs 9 mo; 8 semesters)	2x/year 1x/year Rolling admissions based on when qualified	C (73) or better in Nursing courses to progress	Days: no additional fee Eves: additional $138/credit for NUR courses
Mass Bay Community College	FT Days (2 years) PT Eve/Weekend (3 yrs; 9 semesters)	1x/year 1x/year Selective admissions, based on GPA and # of credits completed	C (73) or better in Nursing courses to progress	Additional $60/credit all Nursing courses Eves : $104/credit in addition to above
Mount Wachusett Community College	FT Days FT Eves	1x/year 1x/year Selective admissions, based on results of TEAS, GPA, other coursework and work experience	C+ or better in Nursing courses to progress	Days: additional $50/credit Eves: additional $89/credit
Northern Essex Community College	FT Days FT Eves (suspended)	1x/year 1x/year Selective admissions, based on results of TEAS (minimum 60%)	C (73) or better in Nursing courses to progress	Additional $20 fee per course all Nursing courses Eves: additional $64/credit MA res. $93/credit out of state.

D. **Based upon the committee's knowledge of 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 in what areas that bear further exploration.**

A review of State Boards of Nursing websites across the country identified NCLEX pass rates for nursing programs. Two Associate Degree programs were randomly selected for review based upon their high NCLEX first-time pass rates (above 95%), as

compared to the current first-time pass rates for MCC of 83-84% (see p. 21). The curriculum and admission criteria were reviewed and compared to the MCC Nursing program. There were very few differences noted with the exception of selective admissions and entrance examination testing, similar to the programs in this general area.

College	Program Options	Admissions	Program Grade requirements
Middlesex Community College	FT days (2 years) PT Eve/Weekend (2yrs 9 mo; 8 semesters)	2x/year 1x/year Rolling admissions based on when qualified	C (73) or better in Nursing courses to progress
Pima Community College (Arizona)	FT Days (2 years)	1x/year Selective admissions,	C (73) or better in Nursing courses to progress
Bergen Community College (New Jersey)	FT Days FT Eves	1x/year 1x/year (Spring) Selective admissions, based on results of HESI, minimum GPA of 3.0	C+ (74.5) or better in Nursing courses to progress

Although selective admissions may result in better qualified students, the Nursing faculty believe the current admissions criteria allows all students the opportunity to enter the program when they meet the qualifications, which possibly increases the opportunity for a diverse student population. Additional supports to assist in student success, as discussed later in this report, are being considered to address retention rates and NCLEX success.

E. **Please describe mechanisms or procedures currently in place to monitor changes in the job market and review the program's currency and "fit" with the educational interests and needs in our region. Explain how these groups have contributed and/or impacted the program's offerings.**
   1) **Relevant external parties, such as advisory groups, corporations/agencies, professional groups, outside licensure/accrediting bodies, etc. If there is an advisory committee in place, please comment on the frequency of meetings and the contributions/impact the committee has had on the program. Include names of members and minutes of the meetings in the appendices of the program review.**

The Nursing Program has an Advisory Board that meets once a year in April. Members of the Board include representatives from area hospitals and health care facilities, representatives from colleges with whom the nursing program has an articulation

agreement, and program alumni. The Advisory Board meetings are a valuable opportunity to discuss trends and concerns in health care as well as to help inform decisions the program makes. For example, the input from the advisory board was utilized in the recent curriculum revision the nursing program underwent, as described further in this report. Information from the NCSBN (National Council of State Boards of Nursing) NCLEX Program Reports and NCLEX Test Plan are also used to review the curriculum relevancy and currency.

    2) Relevant internal groups or individuals, such as other departments, programs or areas at the college that: (1) utilize your courses as prerequisites for their courses and/or program or (2) supply prerequisites for your courses.

The nursing program works closely with other departments who provide pre-requisite courses for the program to identify any issues or concerns that might impact the students and/or the program. For example, when planning the nursing program curriculum revision, input was sought from the Math Department regarding a change in the math course requirement from Math Connections to Introduction to Statistics. This proposed change would have an impact on meeting the Computer Literacy Intensive Value as the Math Connections course was currently used to meet this intensive value. To assist this curriculum change, the faculty who teach Introduction to Statistics sought approval to have the course meet the Computer Literacy Intensive Value so this course could satisfy this value in place of the current Math Connections course.

In another example, in 2008 the assistant dean for nursing worked with the math department chair, the Self-Paced Studies Center and the Testing Center to update and revise the Math for Nurses Test and the 1-credit review course for students who are not successful in passing the Math for Nurses test.

Most recently, the Science Department proposed college Biology as a pre-requisite for Anatomy & Physiology I. This had implications for the nursing program as the NLNAC accreditation guidelines stated the biology course would then count to as part of the program's credits. Working collaboratively, a plan was developed to allow students the option of testing out of college Biology. This plan met the science department's needs and the nursing program's requirements.

    3) Other populations (i.e., students, alumni, community members, cooperative education supervisors, practicum supervisors, service learning supervisors, community agencies).

Students have input into the program in several ways:
- Students complete course evaluations at the end of each nursing course and a program evaluation at the end of the program.

- Graduates are sent a graduate survey 6-9 months after graduation in which they give feedback on the curriculum, clinical experiences, and services available.

- Student representatives attend nursing department faculty meetings. The representatives are selected from interested students in both the full-time and part-time program options and serve to bring issues and concerns from the students to the faculty as well as help to communicate information back to the students.

Section IV: Curriculum – Institutional Student Learning Outcomes

Institutional Student Learning Outcomes
      (see Appendix A for detailed listing of MCC's Institutional Student Learning Outcomes)

      a.   **Please provide your program's timeline for ongoing, annual assessment of MCC's ISLOs that are supported to proficiency within your program.**

YEAR	ISLO
2008-09	Knowledge & Skills
2009-10	Communication (oral, numeracy)
2010-11	Personal & Professional Development
2011-12	Critical Thinking
2012-13	Communication (written, Information literacy/tech fluency)
2013-14	Social Responsibility
2014-15	Global Perspectives

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

Not Applicable

c. As appropriate, map the way in which your program provides opportunities for students to progress towards proficiency level of MCC's Institutional Student Learning Outcomes, by noting in which courses outcomes are **Introduced (I), Developed (D)**, or where students are expected to demonstrate **Proficiency (P).**

Curriculum Map I:
Program Opportunities for Student Progress toward ISLOs

	NUR 101	NUR 102	PSY 101	BIO 231	ANT 101	NUR 151	NUR 152	BIO 232	ENG 101
Knowledge & Skills	I	D	I	D	I	D	D	P	
Critical Thinking	I	D	D		D	D	D		I, D
Communication (written)	I	D	I	D	I	D	D	P	I, D, P
Communication (oral)	I	D				D	D		
Communication (numeracy skills)	I	D		D		D	D	D	
Communication (info literacy & tech fluency)	I	D				D	D		I, D, P
Global Perspectives	I	D	P		P	D	D		
Social Responsibility	I	D				D	D		D
Personal & Professional Development	I	D				D	D		I, D, P

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	NUR 201	NUR 202	BIO 235	MAT 085	ENG 102	NUR 251	NUR 252	NUR 260
Knowledge & Skills	I, D, P	I, D, P	P	I		P	P	D, P
Critical Thinking	D	D, P		D	D	D, P	D, P	P
Communication (written)	D	D, P	P	I	D, P	P	P	P
Communication (oral)	D	D, P		I		P	P	P
Communication (numeracy skills)	D	D, P	D	D		P	P	
Communication (info literacy & tech fluency)	D	D		I	D, P	D, P	D	P
Global Perspectives	D	D		I	D	D	D	D, P
Social Responsibility	D, P	D			I, D	D	D	D, P
Personal & Professional Development	D	D		D	I, D, P	D	D	D, P

d. Please comment on the sequencing of opportunities for students to develop and achieve to ISLO proficiency within the program as appropriate, as noted on Curriculum Map I.

A review of the course sequencing indicates that students have the opportunity to progress towards the proficiency level in the Institutional Student Learning Outcomes as they progress through the Nursing program. The nursing courses and co-requisite course provide the students with multiple opportunities to develop the necessary knowledge, skills and abilities in each of these areas. The Nursing program terminal objectives address each of the ISLOs, as follows:

At the completion of the Nursing Program the graduate will:

1. Use critical thinking skills, evidence based practice and caring theory in the application of the nursing process to provide culturally sensitive nursing care to individuals, families and groups within a variety of health care settings. **(Knowledge & Skills, Critical Thinking, Global Perspectives, Social Responsibility)**

2. Utilize teaching and therapeutic communication skills to assist clients in meeting health needs, maintaining wellness and coping with and/or resolving health problems. **(Knowledge & Skills, Communication)**

3. Use management skills to provide nursing care to clients and to delegate nursing care to health team members commensurate with their level of preparation. **(Knowledge & Skills, Critical Thinking, Communication)**

4. Practice within the legal and ethical framework of the profession. **(Social Responsibility, Personal & Professional Development)**

5. Accept responsibility for personal and professional growth by participating in continuing education, nursing research and membership in professional organizations. **(Personal & Professional Development)**

e. Please indicate on the following pages as appropriate how each ISLO is supported to proficiency achievement within the program and how that achievement is assessed. Also as appropriate, please note where ISLO achievement is directly supported by Program SLO achievement. If the strategy for attainment of an ISLO is contained within a particular course, please list the course first, with the relevant activity (or activities) listed next to each course. If there is nothing currently in place that is intended to provide for the attainment of a particular outcome or to assess the extent to which the outcome has been realized, please leave the appropriate space blank. The blanks will help to identify areas which need further development.

Knowledge and Skills
The MCC graduate will use knowledge acquired at MCC as a foundation for continued study and/or practical application.

Course	Assessment Strategies
Fundamentals of Nursing (NUR 101/102)	• Theory course exams and final exam • Research paper and presentation for health fair project • Lab quizzes and certifications • Clinical evaluation tool
Intergenerational Nursing (NUR 151/152)	• Theory course exams and final exam • Community agency analysis and presentation • Lab quizzes and certifications • Clinical evaluation tool
Nursing Care of the Adult I (NUR 201/202)	• Theory course exams and final exam • Service learning portfolio • Critical thinking client study • Lab quizzes and certifications • Clinical evaluation tool
Nursing Care of the Adult II (NUR 251/252)	• Theory course exams and final exam • Clinical disorders presentation) • Lab quizzes • Clinical evaluation tool
Nursing Issues (NUR 260)	• Performance on assignments (i.e. article summary, ethics paper, philosophy of nursing)

Students in all nursing courses must attain a minimum of a 73% average in course exams in order to pass the theory course. Grades for other assignments (ex: projects, reports, oral presentations, etc.) will not be factored into the final average unless the student has a 73% or better average on course exams. The rationale for this grading policy is because the National Licensure exam (NCLEX-RN) is an objective (mostly multiple choice) exam that students must pass in order to become a registered nurse. Analysis of pass/fail rates on NCLEX in 2000 determined that students who were passing the nursing courses with a 73% average including the additional other (non-test) assignments factored into the final average generally were not successful in completing the program and/or passing the NCLEX.

- ***Describe how this Institutional Student Learning Outcome is assessed for proficiency at the program level.***

The Institutional Student Learning Outcome of Knowledge and Skills is assessed for proficiency at the program level through the graduation rates and the NCLEX-RN pass rates. As part of the systematic plan to evaluate the nursing program required by the Board of Registration in Nursing and the NLNAC, the program has an outcome that states "seventy percent (70%) of enrolled students will successfully complete the nursing program within 150% of the normal program time based on their point of entrance." For the NCLEX-RN pass rate, the

program outcome states "eighty-five percent (85%) of graduates will pass the NCLEX-RN on the first attempt."

- **What does the program's data analysis reveal about student achievement of this ISLO within the program?**

Since the program instituted the 73% average in course exams in May 2000, the program has shown an improvement in the graduation rate and has met the program benchmark for the past three academic years, as evidenced by the table below:

Academic Year	Combined		Full-Time Program Option		Part-Time Program Option	
	Graduation Rate	Retention (graduating + persisting)	Graduation Rate	Retention (graduating + persisting)	Graduation Rate	Retention (graduating + persisting)
2000-2001	49%	64%	49%	64%		
2001-2002	76%	84%	76%	84%		
2002-2003	61%	67%	61%	67%		
2003-2004	74%	78%	74%	78%		
2004-2005	61%	65%	61%	65%		
2005-2006	64%	69%	67%	69%	55%	68%
2006-2007	76%	81%	77%	81%	73%	82%
2007-2008	74%	81%	76%	82%	71%	76%
2008-2009	70%	75%	72%	76%	66%	75%

The full-time class who graduated in May 2009 is the first class admitted under the increased admission GPA requirement (the first graduating part-time program class will be in May 2010). Although the graduation rate was not improved for the May 2009 class, the faculty hope there will be an improvement in the first-time pass rates on NCLEX for this class. The program will continue to analyze graduation and retention rates to determine what impact the change in GPA requirements on student success will have.

Other changes the program implemented to assist with student success was the At-Risk program which was piloted in 1999 and fully implemented in 2001. This program is designed to help students who were identified as being at risk for failing by providing assistance with study skills and test-taking skills.

Analysis of NCLEX pass rates over the same period of time indicates there is a decline in the first-time pass-rates from a high of 90% in 2002 to the current rate of 83% (see table). The pass rate has been below the national average and the program benchmark of 85% for the past 4 years.

Year	Overall Pass Rate (First-Time)	January Grads	May Grads (FT)	May Grads (PT)
2000	88%			
2001	85%			
2002	90%			
2003	89%			
2004	87%	85%	88%	
2005	83%	85%	77%	
2006	84%	88%	74%	100%
2007	83%	86%	89%	68%
2008	83%	93%	68%	96%

Further analysis of the NCLEX pass rate by class has indicated no discernable trend, other than generally lower pass rates in the May FT graduates compared to the January FT graduates. If second-time pass rates are factored in the pass rate improves noticeably:

2003: 95%
2004: 92%
2005: 96%
2006: 92%
2007: 92%
2008: 94%

Students take a Diagnostic Readiness Test (DRT) in their final semester which gives them information about their areas of weakness to help prepare for taking NCLEX. The DRT also predicts student success on NCLEX. The DRT has a high reliability and validity for students predicted to pass (90%-100% reliable), but varies greatly on students not predicted to pass (anywhere from 0% to 64% predicted to fail actually do fail). This information along with the above data on second-time pass rates (usually taken within 2-3 months of the first attempt) supports anecdotal information from students that may suggest students are not adequately preparing in advance for their first time to take NCLEX.

In 2008, the nursing department conducted a review of the current nursing program curriculum compared to the NCLEX 2007 Detailed Test Plan to assure that all relevant content was being covered. In addition, data collected from the NCSBN NCLEX Program Reports was reviewed. Although there were no identifiable deficits in content, there was a downward trend in the client needs area of Pharmacological and Parenteral Therapies. The median performance for graduates of the program is consistently above the passing performance, but has been trending downward when compared to the median performance for

graduates from our jurisdiction, similar programs and graduates from all programs.

**Comparison of MCC Graduates Performance on
Client Needs Area of Pharmacological and Parenteral Therapies**

	Graduates from MCC	Passing Performance	Graduates from your Jurisdiction	Graduates from Similar Programs across every Jurisdiction	Graduates from All Programs across every Jurisdiction
Apr. 2006 – Sept. 2006	67%	53%	62%	63%	62%
Apr. 2007 – Sept. 2007	58%	53%	62%	62%	61%
Apr. 2008 – Sept. 2008	60%	53%	65%	63%	64%

This trend was supported in a survey of the nursing faculty, who identified that student's knowledge of pharmacology in the clinical area was weak. This sentiment was also voiced by the nursing program's advisory board members, who commented that new graduates in general have difficulty with medication knowledge and administration when hired.

- **What curricular and/or instructional changes are planned within the program as a result of this data (if any)? Consider:**

    o **The scope and sequence of Introductory, Developing, and Proficiency level student learning opportunities**

    o **The adequacy of the range of learning experiences and assessment methodologies that your program offers to meet student learning needs**

The current curriculum was approved by the Board of Registration in Nursing in 1995 and has undergone some minor revisions over the years. Although the program had a successful NLNAC accreditation visit, given the fact that the current curriculum was more than 10 years old, the nursing faculty charged the nursing program curriculum committee with conducting an in depth review of the curriculum for currency.

The curriculum committee analyzed the NCSBN 2006-2007 Continuous RN Practice Analysis, the 2007 NCLEX-RN Detailed Test Plan, the Core Competencies for Health Care Professionals (Institute of Medicine, 2003), the NLN Educational Competencies for Graduates of Associate Degree Nursing Programs (2000), and other published current health trends as well as reviewing nursing practice literature and exploring other nursing theories. The nursing

faculty and other nursing programs were also surveyed to see if any trends were identified or areas of emphasis were missing. The following curriculum changes were proposed based upon this review:

1. Incorporate evidence-based practice into the curriculum as a pervasive concept, (as part of the current Nursing Process organizing concept), to prepare students for future practice. The program philosophy, organizing concepts and outcomes were amended to reflect this new emphasis.

2. Update the current organizing concept of Caring. The current concept is based on the theories of Jean Watson and Sister Simone Roach, both of whom have updated/revised their theories. The program philosophy and organizing concepts were amended to reflect the updated theories.

3. Add a discrete 3 credit Pharmacology course to 2nd semester, as the students' knowledge of Pharmacology is perceived by faculty as weak and may be impacting NCLEX results. In order to provide the three credits for this course without adding credits to the program, one credit was taken from each of the 2nd, 3rd, and 4th semester nursing theory courses.

4. Substitute Introduction to Statistics for Math Connections as the math course requirement. The Introduction to Statistics course is more congruent with the emphasis on evidence-based practice and nursing research.

5. Substitute English Composition I into the first semester from the second semester as a co-requisite course. This course is now a pre- or co-requisite course for Anatomy & Physiology I, which is required in the 1st semester. To balance the credits, Cultural Anthropology was moved to the second semester from the first semester.

These curriculum changes were approved by the MCC Curriculum committee and FSA in February 2009, by the Massachusetts Board of Registration Nursing in April 2009, and by the NLNAC in June 2009. Implementation of the revised curriculum is scheduled to begin in the Fall 2009.

The other change the nursing program is implementing is the adoption of a curriculum support package from ATI (Assessment Technologies Institute). This package will provide the students with assessment tests (both proctored and un-proctored) as well as individual remediation plans to help students identify areas of weakness as well as strategies to improve success.

The faculty will continue to analyze the data collected as the new curriculum is implemented and will communicate the findings to all of the faculty, the Nursing Advisory Board, and clinical agencies as appropriate. The desired outcome the faculty hope to achieve with the curriculum change would be to see an

improvement in the NCLEX first time pass rates, including improvement in the client needs area of Pharmacological and Parenteral Therapies. We hope that graduates would report an increase level of preparedness to practice nursing and competence in medication administration as a new graduate. We would expect to hear from the Advisory Board that they see an increase in medication administration competency and knowledge in the new graduates from Middlesex Community College. These outcomes will be evaluated by surveying faculty, graduates and the Advisory Board. In addition, program completion rates, NCLEX first time pass rates, and NCSBN NCLEX Program Reports will continue to be assessed for trends.

Section V: Program Evaluation Summary

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

The following strengths of the program were identified in the self study and still remain:

- A dedicated and experienced faculty who work well in a collaborative atmosphere. New faculty frequently comment on how welcome and supported they feel. The faculty's willingness to teach in both the full-time and part-time program options helped the success of the part-time program option.

- The Nursing Program's diverse student body.   As students are preparing to care for a diverse population, they learn about diversity from each other.

- The curriculum, built on a strong theoretical base, is well-developed and consistent. The three pervasive and two progressive organizing concepts are contained in all of the nursing courses. Since the self study the program has revised the curriculum to reflect current nursing knowledge and increase the emphasis on evidence-based practice.

- The positive reputation that the College and the Nursing Program have in the community. Members of several of the affiliating agencies are active participants in the annual advisory board meeting and give valuable insights and positive feedback about the program. Clinical placements give the students quality clinical experiences; many of the graduates of the program are hired by the facilities where they have had their clinical experiences.

- The strong nursing leader with exemplary administrative support, as citied in the NLNAC Board of Commissioner's report. This support includes providing appropriate resources as the program has grown, within fiscal constraints and those placed by collective bargaining. The College and the Nursing Department continue to encourage and support faculty development.

B.   **Program Needs for Improvement, Proposed Plans for Improvements, Budgetary Implications, Timelines**

Although several areas to improve were identified in the self study, the program has already made progress on many of these areas which include:

- Expansion and updating of the Nursing Learning Center to support the increase in enrollment the program had already undergone. This was made possible through funding provided by the college for the necessary construction and a Federal HRSA grant received in 2008. The expansion includes additional space, storage cabinetry, and updated equipment (including simulation mannequins) to enhance the student learning.

- Graduation rates and NCLEX results. In Fall 2007 the admission GPA was increased to 2.5 in an effort to make sure that applicants were prepared for the academic rigor of the program. It was believed this would work to improve graduation rates and first-time NCLEX pass rates. In addition, the faculty explored implementing a curriculum support package through ATI (Assessment Technologies Institute) which will offer students assessment testing and guided remediation.

- Continued revision of the program's Systematic Evaluation Plan. Because evaluation of the Nursing Program is an on-going and very active process, the Systematic Evaluation Plan has been revised in 2004, 2005, and 2006. In 2008 the Systematic Evaluation Plan was totally revised to reflect the new 2008 NLNAC Standards and Criteria. This included the addition of over 20 new criteria to be evaluated.

- Recruiting and retaining academically and experientially qualified faculty, as cited in the NLNAC Board of Commissioner's report. With the success of a pilot Faculty Mentoring Program in AY 2003-2004, a formal mentoring program for all new full-time and adjunct nursing faculty was implemented in Fall 2006. Adjunct faculty report they feel welcomed and supported through the mentoring. Retention of adjunct faculty has risen from 43% in AY 2005-2006 to 82% in AY 2008-2009. In addition, the number of faculty who do not have the minimum of a master's degree in nursing has decreased from 11 out of 41 (27%) in AY 2006-2007 to 7 out of 36 (19%) in 2008-2009, as four adjunct faculty have completed their graduate studies.

The following program needs still require addressing:

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
Support to allow for improvement in NCLEX first-time pass rates to above national average (87-88%), as well as improved student competence in medication administration	• Implement use of ATI curriculum support package	• Current cost: $119/ student (first semester), $93/ student (subsequent semesters). Total anticipated annual cost: $36,000* • computer classroom to support ATI testing	• Begin Fall 2009
	• Implement revised Nursing program curriculum		• Begin implementation in Fall 2009 with full implementation in Fall 2011
Support for faculty development of knowledge and skills to increase the implementation and integration of new simulation technology into the curriculum	• Submit minigrants for faculty to develop simulations • Continued professional development for faculty to add simulation experiences to skills labs for each semester		• Begin implementation of simulations in Fall 2009
Provide support for the mentoring of new faculty (both full-time and adjunct)	• Work with P. Gleason to provide professional development for new FT faculty. • Continue to have new adjunct faculty assigned an experienced faculty member as a mentor.		• Fall 2009 • ongoing

*cost of ATI materials to be obtained through replacing the cost of current software/testing and faculty support (approximately $10,000) and possibly through implementation of a fee for testing charged to students

SECTION VI: Report from Professional Accrediting Board
If available, please enclose the Board's final report.

(see attached)