Midlands Technical College
Majors or Concentrations
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Summary Statement of 1999-2000 Assessment Study

Midlands Technical College (MTC) assesses specific majors on a three-to-five year cycle that typically coincides with self-studies and visits from external accreditation agencies. The assessment of majors determines the degree to which specific programs provide specialized knowledge, skills, and attitudes leading to employment in the field or discipline and/or success in a transfer senior-level program.

The program review process, which generates the assessment of majors, includes an analysis of the specific data elements identified to evaluate the effectiveness and the efficiency of programs at MTC. The effectiveness component of the process focuses on the learning outcomes, clients' satisfaction, and the vitality of each program. The efficiency component focuses on quantitative data that indicates the program cost, the space utilization rates, and the section size of courses.

In 1998-1999, the following five programs were assessed: Dental Hygiene (DHG), Dental Assisting (DTA), Nuclear Medicine (NMT), Practical Nursing (PNR), and Radiologic Technology (RAD). A follow-up on the progress in meeting recommendations from completed program reviews revealed the following program improvements:

(1) installed the Thompson Dental Company Management software in the Dental Clinic that enables students in the Dental Hygiene and Dental Assisting programs to utilize intraoral camera photo captures.

(2) incorporated additional computer skills into the Nuclear Medicine curriculum.

(3) implemented a Volunteer Program to provide additional clinical practice for students in the Radiologic Technology program.

(4) upgraded the curriculum in the LPN program to include the study of Maternal Infant Nursing (PNR 150) and the Nursing Care of Children (PNR 160).

(5) conducted training for the LPN adjunct faculty on "Using Technology in the Classroom."

(6) provided a "Nurses Day" program for service area high school students. This program provided the high school students with hands-on experiences with various practice situations in the LPN program.

(7) developed and distributed a LPN information packet to local area high school counselors.

Academic Council participated in a workday to review the entire program review process. This included a review of the specific data elements identified to evaluate the effectiveness and efficiency of programs and a review of the alumni, employer, and student surveys. This process resulted in the

addition of survey questions, data element revisions, and the development of a new reporting process. The new process requires that Department Chairs/Program Directors report the major findings of their program review to the Vice President of Education, Executive Council, Academic Council, the Curriculum and Faculty Relations Committee of the Commission and the full Commission beginning with the 1999-2000 programs undergoing a program review. The details of the new process are being developed.

Two objectives were identified for the 1999-2000 action plan of the assessment of majors or concentrations activity at MTC. All objectives were achieved and a description of each objective and its achievement are included in a later section of this report.

Two objectives have been identified for the 2000-2001action plan. They are: (1) establish a process to systematically review the program review findings that includes the Vice President for Education, Associate Vice President for Education, and other upper level groups of the college's administration and (2) monitor the progress of program recommendations from completed program reviews.

Description of Assessment of the Major

Assessment of the majors or concentrations in credit courses, through a complete program review process, closely ties to the institutional effectiveness process at MTC. Those individuals who perform institutional effectiveness activities evaluate the outcomes' consistency with the stated institutional mission and goals, measure the outcomes, and use the results of the measures to identify areas for institutional improvement. The assessment of the majors or concentrations in credit courses activity is significant in that it evaluates and measures outcomes of the educational process, which, in turn, helps those involved identify areas in need of institutional improvement.

The program review process includes the analysis of identified data elements that indicate the effectiveness and efficiency of programs at MTC. Implementation of the review process includes analysis of the following data elements: achievement of goals; mastery of capstone competencies; course progression; mastery of general education core competencies; success at senior institutions; student, alumni (graduate) and employers satisfaction; placement in field (duplicated headcount); annual unduplicated headcount of program majors/FTE; advisory committee participation; percent adjunct faculty in major; percent of adjunct faculty by discipline in general education; faculty credentials; number of graduates; retention of students by program; annual program cost; space utilization; and average section size. The program faculty work with personnel in the Education Unit to develop appropriate standards for these elements. Subsequently, the program faculty collect data that can indicate areas for improvement in these elements and make plans for changes that can affect the desired improvement. Although the program review process evaluates data that represents the perspectives of students, graduates, advisory committee members, faculty members, and administrators at MTC to obtain the most complete picture of the institution, a major focus of the process is the analysis of students' learning outcomes and successes. The weighty evaluation of students' outcomes and successes reflects the mission of MTC as a teaching institution and the importance that the faculty, staff, and administration place on teaching excellence. Representative of the data that indicates students' learning outcomes and successes are the capstone competencies and the general education core components.

Capstone competencies are defined as stated expectation(s) of knowledge and skills in both occupational/technical and general education areas that a student demonstrates at the successful

completion of a program. Capstone competencies serve as a major indicator of student outcomes, combining technical and general education knowledge and skills. Program faculty have typically selected one of the following methods of assessing capstone competencies: a capstone course, a capstone project, an internship, or a licensure examination and/or simulated licensure examination. Mastery of the general education core component, evaluated in a separate report, indicates the degree of academic success experienced by associate degree students in the general education core course work. A variety of data is gathered on students' academic success in course work that represents a specific competency within each stated general education value. Student performance that does not meet the stated success criterion leads to an evaluation of the process, seeking explanation that might indicate a revision in the course(s) to better represent the specific competency.

In the program review process, data for a three-year period is reviewed to determine trends and program faculty make recommendations for program improvement. The program recommendations derived from the findings are tied to the institution's annual plan in terms of budget, equipment, facilities, and personnel. The tracking of program recommendations and follow up of action taken to ensure academic program improvement demonstrate the accountability built into the program review process at MTC. Through this annual activity of the assessment of majors or concentrations for specific programs and the generation of this report, the continued emphasis on institutional effectiveness through assessment is reinforced

Achievement of 1999-2000 Action Plan Objectives

Midlands Technical College evaluated and reported on the institutional effectiveness component of the assessment of majors to the Commission on Higher Education (CHE) in July, 1999. The 1999-2000 action plan had two objectives. The following section identifies each objective and its achievement status.

Objective A: Review the Vitality Study results with each department chair of the programs undergoing program reviews.

Status: The results of the Vitality Studies were reviewed with each department chair undergoing a program review.

Objective B: The college will continue to monitor the progress of program recommendations from the completed program reviews.

Status: The progress of the recommendations for the five programs reviewed were monitored by the Director of Curriculum Development. Each program was required to report on the achievement of each priority recommendation. This ensures that each recommendation is completed.

Major Findings of the 1999-2000 Assessment Study

The detailed, major findings of the study of scheduled selected majors through the program review process are contained in the executive summaries of each program and are placed as attachments to this report.

2000-2001 Action Plan Objectives

The 2000-2001 action plan objectives for assessing majors or concentrations at Midlands Technical College consist of the following two objectives.

Objective A: Establish a process to systematically review the program review findings that includes the Vice President for Education, Associate Vice President for Education, and other upper level groups of the college's administration. This review would include the data elements that indicate the effectiveness and efficiency of the programs at MTC.

Objective B: Monitor the progress of program recommendations from completed program reviews.

EXECUTIVE SUMMARY

Program: DENTAL ASSISTING (DAT)

Description of Program/Background Information:

The Dental Assisting program includes instruction in restorative dentistry and preventive oral care, including teaching clients oral self-care, applying sealants to the grooves of clients= teeth, producing diagnostically acceptable intraoral radiographs (x-rays), polishing teeth and fillings, assisting the dentist, preparing the filling materials, scheduling clients and managing health information.

Employment opportunities in South Carolina include private practice; i.e., as chair-side dental assistants, treatment coordinators, OSHA compliance specialists, dental laboratory assistants, secretarial assistants and office managers. There are also opportunities in public health settings, hospital dental practices, prison dental clinics and insurance companies.

Related careers include dental product sales representative, infection control consultant for private dental office, dental office business manager and dental assisting education.

Important Findings

Strengths:

1. DAT program rates high in effectiveness as its graduates and employing dentists are very satisfied with the program outcomes.

2. The DAT program curriculum and faculty prepare the students well to pass their certification exams and to function in the dental community. The curriculum is on target and the faculty is caring.

3. The DAT program is efficient and in fact produces about 42% of the yearly income from tuition and state funds for the ADEP. Although the student population is only 22% DAT yearly, the high number of DAT credit hours contributes significantly to the ADEP efficiency.

4. Strong dental community support as evidenced by the many dental offices that are professional hosts for our DAT students= rotations.

Weaknesses:

1. High percentage of contact hours taught by adjunct faculty and significant overload of program director in the Fall term.

2. Faculty credentials currently are deficient in meeting the new ADA standards to be instituted in January 2000.

3. Inconsistent attendance of advisory committee members in recent years.

4. Perception by alumni that the curriculum is too intense in a one-year program and that there is a lack of adequate practice management of dental software.

Priority Recommendations (See Recommendation Section for details):

1. Hire additional full-time faculty members for Dental Assisting program.

2. Continue to work with the dental community to maintain enrollment of dental assistants at the current level or above and to offer continuing education courses for expanded duty dental assistants.

3. Upgrade the dental suite with the necessary hardware and networking system to accept practice management software.

4. Facilitate the dental assisting faculty in securing the required ADA credentials.

5. Institute a mechanism to increase ADEP advisory board attendance and involvement.

6. Complete the ADA self-study of the program and curriculum in 1999-2000 as prep for the reaccreditation site visit in December 2000.

Progress Made to Date:

1. Dr. Boan advised the Dental Assisting program that the request for an additional ADEP instructor has now been prioritized as Number 6 on the college-wide list.

2. Program director for Dental Assisting attended Education Task Force with SCDA. Will be attending a workshop with SCDA and other dental assisting program directors to map out a plan to increase enrollment in dental assisting programs.

3. The hardware is networked and the software for practice management is in place. The hardware and software for the intraoral cameras have been purchased and installed.

4. The dental assisting director and one adjunct have been taking courses to complete their degrees. MTC has made it possible by awarding the director professional development money.

5. A mechanism was instituted for Fall 1999 to receive feedback via written comments for the DACUM for those who could not attend.

6. Work is in progress for the ADA self-study of the program and curriculum as prep for the reaccreditation site visit in December 2000. A first draft of the ADA self-study was completed in May 2000.

EXECUTIVE SUMMARY

Program: DENTAL HYGIENE (DHG)

Description of Program/Background Information:

The Dental Hygiene program includes instruction in principles of preventive oral care, including teaching clients self-care, examining clients= head and neck areas for abnormal health status, nutritional counseling, applying sealants to the grooves of clients= teeth, producing diagnostically acceptable intraoral radiographs (x-rays), managing pain and anxiety, and removing deposits from clients= teeth with scaling procedures.

Employment opportunities in South Carolina include private practice; i.e., as employees of dentists. There are also opportunities in public health settings, hospital dental practices, prison dental clinics and in dental hygiene education.

Related career roles include dental product sales representatives, infection control consultants for private dental offices and dental hygiene educators.

Important Findings

Strengths:

1. Outstanding learning outcomes--high licensing board and national board pass rates. (Strong, Aon target@ curriculum and dedicated faculty and staff).

2. High satisfaction rate by employing dentists and graduates. (Due to outstanding, professional faculty, good clinical facility, and commitment to capstone competencies collegial culture of the programs).

3. Outstanding vitality of program--demonstrated by high placement rate in field, high numbers of graduates and qualified, veteran faculty.

4. The program is very efficient, generating sufficient revenue to cover the DHG portion of the ADEP budget, the Dental Clinic receptionist=s salary, and yielding a surplus. Furthermore, the Dental Clinic live operation covers the operational cost for the 18-chair clinic.

Weaknesses:

1. Slight trend in lowered advisory committee attendance and involvement.

2. Less than adequate increase in budgeted dollars in proportion to the almost 50% increase in student/FTE reimbursement in 1997-98 and 1998-99.

3. Perception by some students and faculty that the recent increase in class size has lessened the amount of attention students receive, generated less amenable schedules, caused uncomfortable crowding in the facility for students and adjuncts, and caused concern about flooding the market.

4. Too little emphasis in the curriculum on computerized practice management skills, root planing, communication with dentists and patients about treatment plans, time management in the Areal@ world, cultural diversity, and;

5. Concern by some dentists that the confidence displayed by MTC graduates is perceived as haughty and that the graduates do not display teamwork.

Priority Recommendations (See Recommendation Section for details):

1. Institute mechanisms to increase ADEP advisory board attendance and involvement.

2. Complete a Amini@ program review for the years 1997-98 and 1998-99 to determine the impact of the increased DHG enrollment on the effectiveness and efficiency of the program.

3. Upgrade the clinic with the adequate hardware and networking system to accept the Thompson Dental Company practice management software, enable students to access the Internet and to utilize intraoral camera photo captures.

4. Establish a plan with the Operations Department of the college to refurbish and remodel the dental suite to accommodate the increased numbers of students and faculty.

5. Complete a curriculum study in conjunction with the upcoming program=s ADA reaccreditation self-study to determine the validity of curricula concerns and Aimage@ concerns about graduates.

Progress Made to Date:

1. A mechanism was instituted for Fall 1999 to receive feedback via written comment for the DACUM for those who could not attend. This Awritten feedback@ was noted in the minutes.

2. Received the data from Assessment, Research, and Planning; June 2000. The analysis is proceeding.

3. The hardware is networked and the software for the practice management is in place. The hardware and software for the intraoral cameras have been purchased and installed.

4. A plan was established Fall 1999. The college allocated $21,000 for this project. The plan was updated January 2000 with Operations. The dental suite is being refurbished and remodeled to accommodate the increased numbers of students and faculty.

5. A curriculum study in conjunction with the upcoming ADA reaccreditation self-study is in progress. Draft is expected May 2000.

EXECUTIVE SUMMARY

Program: NUCLEAR MEDICINE

Description of Program/Background Information:

Nuclear medicine technologists are trained in the safe handling and application of radioactive materials for therapeutic and diagnostic procedures in the medical field. The applied skills of nuclear medicine technologists complement nuclear medicine physicians by providing clinical information pertinent to patient diagnosis and treatment.

The Nuclear Medicine program is a full-time certificate program. Admission is limited to those who meet the specific admissions criteria. Each class has an eight-student capacity. The certificate program begins each fall semester and ends with the summer semester.

Students will receive clinical education in major Columbia-area hospitals= nuclear medicine departments and radiopharmacies, with didactic instruction given at the radiologic sciences facility located on the Richland Memorial Hospital campus.

Important Findings

Strengths:

1. Dedicated, qualified faculty.

2. Very professional and knowledgeable students.

3. Clinical affiliate support--provide the students with a variety and quantity of nuclear medicine procedures.

4. Support of college and hospital at administration level.

Weaknesses:

1. Lack of computer skills in the curriculum.

2. Some employers want a nuclear medicine technologist with other health care skills; for example, x-ray, nursing, Amulti-skilling.@

Priority Recommendations (See Recommendation Section for details):

1. Require CPT 101 or equivalent prior to program entry.

2. Actively recruit and publicize graduates from other health-related programs across the state.

Progress Made to Date:

1. CPT 101 is a prerequisite to the NMT curriculum.

2. Program director has been in extensive talks with MUSC, Charleston; Florence-Darlington Technical College; and Spartanburg Technical College. Six potential students from these areas (health programs) may start Fall 2000.

   Multiple flyers have been mailed to health-related programs across the state.

   Program director attended meetings of the Radiological Council on Education to promote the Nuclear Medicine program.

   Packets of information were distributed to student radiologic technologists at the SCSRT convention.

EXECUTIVE SUMMARY

Program: NURSING (LPN)

Description of Program/Background Information:

Graduates of the Practical Nursing program are prepared to give basic, therapeutic, rehabilitative and preventive care in a structured health care setting. They function with the guidance of a registered nurse, licensed physician or dentist as responsible members of the health care team.

The Practical Nursing curriculum is designed to teach basic nursing skills in medical, surgical, gerontological, obstetrical and pediatric nursing. The course of study balances classroom instruction with relevant clinical experience and provides the opportunity for students to gain the knowledge and skills necessary to be an effective practitioner of practical nursing. The program is fully accredited by the National League for Nursing Accrediting Commission and the South Carolina State Board of Nursing. Graduates are eligible to take the National Licensure Examination for Practical Nurses (NCLEX-PN) and upon passing the examination will be designated as a Licensed Practical Nurse (LPN). Candidates who have a criminal record may be required to appear before the State Board of Nursing for South Carolina who will determine their eligibility to sit for the NCLEX-PN.

Practical Nursing graduates may be eligible for positions in hospitals, nursing homes, doctors= offices or other health care facilities.

Important Findings

Strengths:

1. The NCLEX-PN passing rate average has been 100% over the past 2.5 years. Prior to this time, the passing rate averaged 96.4%.

2. The Practical Nursing faculty truly care about each individual student, his/her nursing practice and success.

3. The Practical Nursing faculty are highly qualified clinically and are competent role models. They enjoy working with their students, health clients, and the community.

4. The Practical Nursing program is highly regarded by the students, graduates, and community employers according to Student, Employer, and Graduate surveys.

5. All faculty have new computers in their offices. Software has been updated to keep abreast of technology.

6. Administration, faculty, and personnel of the college are supportive of the program and readily provide assistance when needed.

Strengths cont=d

7. The auto-tutorial lab (ATL) and two computer labs are valuable resources for students in the program. The labs have a wide variety of multimedia and NCLEX-PN review materials available for student practice/use.

8. Clinical facilities and resources are excellent for client care and student learning and are readily available in the local area. The Practical Nursing program is responsive to agency requests for changes and/or modifications.

9. The graduates are considered excellent practitioners and have been continually recruited by local clinical agencies.

10. Policy and procedures are updated each semester and the information is provided to students in the Practical Nursing Student Handbook

Weaknesses:

1 Practical Nursing Leadership/Management course (PNR 175) is located in an acute care setting.

2. Students who fail only one portion of PNR 155, Obstetrics and Pediatrics, are required to repeat both the didactic and clinical portions of the course.

3. There has been an increase in the need for adjunct faculty.

4. Recruitment of students is not effective.

Priority Recommendations (See Recommendation Section for details):

1. Relocate clinicals for Leadership/Management (PNR 175) to a long-term care facility or nursing home setting in an acute care hospital.

2. Separate PNR 155 into two courses.

3. Develop a plan to recruit highly qualified and motivated adjuncts.

4. Develop a plan for improving the recruitment of students for the program.

Progress Made to Date:

1. At least half of the clinicals for the PNR 180 (previously PNR 175), Nursing Seminar, are currently located in a nursing home setting at the VA Hospital. Some of the clinical rotations for the PNR 120 (Medical Surgical Nursing I) course are located in the Lexington Medical Center Extended Care facility, or the VA Hospital. We find that students who have repeated clinical rotations in LTC facilities may have few opportunities to develop and improve their nursing skills. For this reason, I hesitate to place all clinical rotations for the PNR 180 course in a Long Term Care setting.

2. PNR 155 has been replaced by PNR 150, Maternal Infant Nursing, and PNR 160, The Nursing Care of Children.

3. A list of all adjunct faculty available for teaching in Practical Nursing is completed each semester and is given to the department chair of Nursing and the Practical Nursing faculty. Additional resources for adjuncts are available from the department chair of Nursing. Recommendations for adjunct faculty are sought through current faculty and adjunct faculty who observe nurses in active practice and recommend them to the program.

   An in-service program was held by the college to encourage adjunct faculty and acquaint them with technology available for instruction. Those nurses applying for vacant faculty positions are also a source of recruits for adjunct faculty. Advertisements are placed in the newspapers to recruit adjunct faculty.

4. Through the efforts of Theresa Baker, information specialist; Kelly Horn, instructor for Practical Nursing; Maggie Rodes, former program director for Practical Nursing; a ANurses Day@ program was developed. This included presentations by two former PN students, a presentation by Maggie Rodes on Practical Nursing and one on Associate Degree Nursing by Dianne BouFawaz. The students were taken to the practice labs for hands-on experience. A video showing the Practical Nursing students in various practice situations was presented. The response of the high school students who attended was very positive.

   Fliers have been posted to notify students of positions available in the Practical Nursing classes.

   Faculty members are available to make presentations to visiting students as scheduled by Ms. Baker.

   An information paper was developed by Maggie Rodes and has been distributed to counselors in various high schools to help recruit for the program.

   The entering classes at the beginning of the Fall 1999 and the Spring 2000 semesters were at maximum level.

EXECUTIVE SUMMARY

Program: RADIOLOGIC TECHNOLOGY

Description of Program/Background Information:

Radiographers (x-ray technologists) assist radiologists (MD) in performing examinations of the body to rule out or confirm and identify fractures or disease. To accomplish this, radiographers must be well-trained in using highly technical x-ray equipment and applying specialized techniques. Radiographers study human anatomy and physiology, pathology, exposure techniques, positioning, darkroom procedures, fluoroscopic procedures, radiation protection, trauma and mobile radiography. Elective topics in radiation therapy, nuclear medicine and ultrasound are also provided.

The Radiologic Technology program is fully accredited by the Joint Review Committee on Education in Radiologic Technology and graduates are eligible to take the ARRT examination. Upon successful completion, students receive the designation of Registered Radiologic Technologist RT(R).

Required rotations through the trauma center and immediate care areas of radiology are scheduled for certain days, evenings and weekends.

Important Findings

Strengths:

1. Clinical Affiliations--Palmetto Richland Memorial Hospital (PRMH), Lexington Medical Center, and Midlands Orthopaedics provide the students with a variety and quantity of radiographic procedures.

2. Dedicated qualified faculty--all instructors are professional educators and are involved in professional society activities which promote learning and role modeling.

3. Supportive administration on the college and hospital level--this program has been active for 27 years with a 100% pass rate overall on the National Board Exam and a 100% placement rate within one month of graduation.

Weaknesses:

1. Loss of clinical practice time in the hospital due to added SACS liberal arts requirements over the years.

2. Having to acquire additional clinical sites due to the changing role of the hospital. Hospitals are not performing as many radiographic procedures.

3. Funds for new equipment and increased operating expenses for the new building due to moving on campus. PRMH is currently paying for radiographic supplies and equipment maintenance.

4. The budget fluctuates by $43,000 every other year; therefore, the program costs are incorrect.

Priority Recommendations (See Recommendation Section for details):

1. Develop a policy on volunteerism for clinical practice for students.

2. Monitor the variety and number of radiographic exams performed in the affiliates.

3. Develop a budget to reflect the funds needed for energized lab, phantom patient, educational supplies, equipment maintenance, and technology.

4. Meet with the department chair to determine accurate program costs.

Progress Made to Date:

1. Completed: A policy on volunteerism for clinical practice for students has been developed, is in effect, and working great. This policy ensures that RAD students will have many more opportunities to practice using the clinical equipment.

2. Completed: A system has been developed whereby MTC can request the clinical exam information from the computer system at RMH to pull the number and variety of exams.

3. A budget to reflect the funds needed for energized lab, phantom patient, educational supplies, equipment maintenance, and technology has been submitted to the department chair of Health Sciences.

4. Program director for Radiologic Technology will meet with the department chair of Health Sciences by April 28, 2000, to determine accurate program costs.