

Quinsigamond Community College

Internal Program Review

2002 - 2003

Certificate in Surgical Technology
Program

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Section I: Competitive Analysis and Regional Labor Market Demand

1. Market Influences

A. Provide a broad definition of this employment sector. List specific knowledge and skill requirements for employment in this field.

Response:

Surgical Technologists are integral members of the medical team in the operating room. Surgical Technologists work under the supervision of a physician or a registered nurse and are involved in all aspects of perioperative care.

Before Surgery

The Surgical Technologist prepares the operating room by supplying it with the appropriate supplies and instruments. Other preoperative duties include adjusting and testing equipment and monitoring devices. The Surgical Technologist is usually the first member of the operating room team to “scrub” and put on gown and gloves. The Surgical Technologist prepares the sterile setup for the procedure and assists other members of the team with gowning and gloving.

During Surgery

Surgical Technologists have primary responsibility for maintaining the sterile field. Surgical Technologists anticipate the needs of surgeons, passing instruments, and providing sterile items in an efficient manner. As directed by the surgeon, Surgical Technologists may sponge or suction the operative site, prepare suture material, dispense appropriate fluids and drugs, and prepare specimens for subsequent pathologic analysis.

After Surgery

Surgical Technologists are responsible for applying dressings and preparing the operating room for the next case and may also function in the non-sterile role of circulator. This can involve keeping a written account of the surgical procedure, assisting the anesthesiologist, and helping account for sponges, needles, and instruments before, during, and after surgery. Locally, at the present time, Surgical Technologists do not function in the circulator role (Source: Association of Surgical Technologists – AST, www.ast.org/02).

At Quinsigamond Community College, the Surgical Technology program lists the following general goals/objectives:

The student:

- correlates the knowledge of anatomy, physiology, pathophysiology, and microbiology to his/her role as a Surgical Technologist;
- demonstrates a safe level of practice and knowledge in his/her role as a Surgical Technologist;
- identifies the purpose and principles for maintaining environmental control in the operating suite;
- identifies the various classifications of surgical armamentarium, including instrumentation, sutures, and equipment used during the perioperative experience;
- acquires understanding of the ethical, legal, moral, and medical values related to the patient and the operating room team during the perioperative experience;
- identifies the elements, action, and use of medications and anesthetic agents used during the perioperative experience;
- demonstrates and integrates knowledge of relevant medical terminology;
- demonstrates safe practice techniques regarding perioperative routines, patient transportation, positioning, and emergency procedures;
- demonstrates and integrates principles of surgical asepsis as part of the perioperative experience;
- carries out the principles and techniques of medical asepsis as part of the perioperative experience.

- B. Using the relevant labor statistics, indicate whether employment opportunities in the field are expected to increase or decrease over the next 3-5 years. Please cite the sources that you have used to make the predictions. (Note: It is easier for Admissions and Marketing Departments to refer to these predictions if they can quote the source.)**

Response:

Employment opportunities for Surgical Technologists are expected to increase. According to the Occupational Outlook Handbook, employment for Surgical Technologists is expected to grow faster than the average. Faster than average growth is projected as a 21% to 35% increase in employment needs. (Source: Occupational Outlook Handbook, 2002-03 ed., www.bls.gov) The Massachusetts Occupational Employment, Wages, and Training Database, 1996-2006, projects Surgical Technologist employment will increase by 25.5%.

The number of surgical procedures performed is expected to increase as the population ages. People continue to live longer; this will result in an increased need for Surgical Technologists.

Also, due to budget constraints, many Registered Nurse positions in the operating rooms are being converted to Surgical Technologist positions. This is resulting in an increased need due to an increased demand for Surgical Technologists.

- C. Review and analyze the most recent five years of institutional data to determine whether graduates of this program have found employment in their field and/or transferred to related four-year programs in their field within one year of graduation.**

Response:

The Surgical Technologist program has had only two graduating classes at Quinsigamond Community College:

Academic Year 2000

- Number of graduates: 3
- Number transferred to four-year colleges within one year of graduation: 0
- Number employed as Surgical Technologists within one year of graduation: *100%

Academic Year 2001

- Number of graduates: 4
- Number transferred to four-year colleges within one year of graduation: 0
- Number employed as Surgical Technologists within one year of graduation: *100%

*All students were hired by clinical sites prior to graduation.

Academic Year 2002

- Number of graduates: *6

*As of March 2002, four students were offered Surgical Technologist positions. There are positions available in most local hospitals. One student has been accepted into a Physician Assistant program and will not be looking for a Surgical Technologist position. 100% placement is expected.

At the close of each academic year the Early Childhood Education Program surveys the graduating students. In this survey the graduating students review the Early Childhood Program and declare their intentions for the coming year. The results were as follows:

- D. Please identify the specific occupations (and job titles, if possible) for which program graduates are prepared. Identify the types of employers that have hired graduates of this program within the last 5 years.**

Response:

Most Surgical Technologists are employed by hospitals and work in the operating and delivery rooms. Others are employed in clinics and surgical centers. Some work for physicians and dentists who perform outpatient surgery. A few are hired directly by surgeons as a private scrub.

- E. Identify the institutions and the particular degree program to which the students transferred in the last three years.**

Response:

N/A

F. Summary and Analysis: Market Influences

Response:

The following facts are expected to exert a positive impact on the Surgical Technologist program at Quinsigamond Community College:

- Data from the United States Department of Labor, Bureau of Labor Statistics, Occupational Outlook, Handbook, Indicate the job outlook for Surgical Technologists is good, with a growth rate faster than average. Faster than average is projected at a 21% to 35% increase in employment needs.
- Data from the Massachusetts Occupational Employment, Wages, and Training Database also indicate an increase in Surgical Technologist positions.
- Surgical Technologists are cost effective. Presently, hospitals are increasing the number of Surgical Technologist positions, and decreasing the number of registered nurse positions. Utilization of Surgical Technologists brings down costs and assures safe, competent care for surgical patients.
- Quinsigamond Community College is the only Surgical Technologist program to serve Worcester and its surrounding communities. Our closest competition is approximately 40 minutes away. There are several programs that support the Boston area hospital; there are also programs that support the western part of Massachusetts. However, Quinsigamond Community College's major competition is the New England Institute of Technology in Warwick, RI. Quinsigamond Community College and New England Institute of Technology compete for clinical slots at several hospitals. The Surgical Technology program at New England Institute of Technology is a two-year Associate degree program whose tuition cost is \$24,000.

2. Programmatic Currency

A. Describe how the program maintains curricular currency.

Response:

The program maintains curricular currency through a variety of methods, formal and informal:

- Re-accreditation reviews by the Accreditation Review Committee of Education Surgical Technology (last accreditation, 2002). Accreditation is no longer for a specified time. Annual reports are required. Site visits will be done as needed and may be good for up to ten years.
- Annual Report to the Accreditation Review Committee of Education in Surgical Technology beginning in 2002. (Appendix A)
- Quinsigamond Community College faculty reviews. Evaluation reports completed by graduates' employers. (Appendix B)
- Quinsigamond Community College faculty reviews. Graduate Survey. (Appendix C)
- Annual meetings of the Surgical Technologist Advisory Board to canvas opinions on preparedness of our students and to gather information about changes that are occurring in the profession.
- Review of journals, such as: THE SURGICAL TECHNOLOGIST and ASSOCIATION OF OPERATING ROOM NURSES.

B. Explain the existing mechanisms that allow for regular input from local employers or other relevant sources

Response:

As listed in IIA: Clinical site preceptors; Advisory Board members. Additionally, weekly visits by the Program Coordinator to clinical sites where our students complete their fieldwork experiences. At such sites, department educators, staff, and other professionals provide feedback.

C. Describe how this input affects the program. (Note: It is helpful with our accreditation process if you can include some specific examples of input that have led to recent changes in the program.)

Response:

Input from employers and other sources may affect course content, program policies, program structure, or other; for example:

- In 1999, clinical site feedback indicated that our students were not as prepared for clinical as students from Worcester Technical Institute had been. This was due to a shorter semester. It was corrected by moving clinical I from the fall semester to the spring semester. This allowed the student necessary lab time in the fall.
- Beginning in January 2002, the Accreditation Review Committee on Education in Surgical Technology revised the Outcomes Based Accreditation (OBA). The curriculum was adjusted to meet these requirements.

D. Describe ways that the College could support program faculty's incorporating more area industry input.

Response:

Presently, we feel the program receives sufficient input from area hospitals. Some ways the program receives input include Advisory Board meetings which promote input into the program. In the spring semester, we spend four days per week at the clinical sites. During the site visits, we receive input from all levels of hospital staff.

The College could, however, support the maintenance of currency in the program by fully reimbursing the Program Coordinator for attending the National Conference.

E. Summary and Analysis: Currency

Response:

The Surgical Technology program maintains curriculum currency through a variety of mechanisms, both formal and informal. (Refer to IIA)

The College could assist in the incorporation of additional input from the industry. (Refer to IID)

The College could support the maintenance of currency in the program by fully reimbursing faculty for attending the National Conference. Approximate cost would be \$1,500.

3. The Pipeline: OCC Feeders

- A. Identify all feeders, both actual and potential (i.e., sources of applicants) to the program. Please include any potential “customized” feeders the College might be able to develop.**

Response:

Actual Feeders:

Applicants to the Surgical Technology program come from a variety of sources and with a variety of backgrounds.

- The Surgical Technology program is presented in the College Catalog. The College Admissions Office identifies potential applicants and works with them to gain admission to the College and, if appropriate, refers them to the Health Careers Center.
- The Health Careers Center advises potential applicants to the Surgical Technology program and provides them with information about admission requirements for the program. Undecided students who enter the Health Careers Center are provided with information about all health programs offered at Quinsigamond Community College, including the Surgical Technology program.
- Program alumni work in numerous settings and locations throughout New England. Quinsigamond Community College graduates have a good reputation for being well prepared for the profession, and students come to the program as a result of meeting and/or working with these alumni.
- Quinsigamond Community College students are prepared for their profession by learning in local hospitals. The clinical sites provide the students with an opportunity to promote the program and the College.

Potential Feeders:

- Participation in health career fairs and career days in high school to increase an understanding of the profession of Surgical Technology and advertise the Surgical Technology program at Quinsigamond Community College.
- Development of a web page

- B. List all articulation agreements currently in place in this program (i.e., agreements with local Secondary schools, community-based organizations, proprietary schools, etc.).**

Response:

The Surgical Technology program has agreements with many local hospitals:

UMass Memorial Medical Center:

- Memorial Campus
- University Campus
- Marlboro Campus

Worcester Medical Center

- Harrington Memorial Hospital
- Milford-Whitinsville Hospital
- Nashoba Deaconess Hospital
- Landmark Medical Center, Woonsocket, RI

Although there are other small hospitals in the area, they are unable to provide an adequate clinical experience.

- C. Do program faculty regularly collaborate with their peers in local high schools, four-year colleges and universities, business and industry, or community-based organizations on such activities as curriculum development, work-based learning, or professional development? Please cite examples from the most recent three-year period. If no active collaboration at this time, please comment on how this type of collaboration might enhance the program. In what ways could the College provide faculty support in this area:**

Response:

The Surgical Technology program faculty collaborate regularly with their peers in health care facilities. The program's Advisory Board meets at least annually. Faculty maintains license by meeting state continuing education requirements.

This collaboration provides valuable input regarding the direction of the profession of Surgical Technology, the role of the Surgical Technologist in current health care settings, and the preparedness of our graduates to enter the workforce. This input is carefully considered and changes are made as necessary to keep the curriculum current. (For examples, see IIA, B, and C)

The Association of Surgical Technologists, Inc. has developed a detailed list of curriculum requirements for certified Surgical Technology programs. (Appendix D)

- D. Explain the mechanisms in place within the program to insure that students who have been granted credit through articulation agreements transition smoothly into the QCC program. In what ways could the College increase its support in this area?**

Response:

Presently, there are no articulation agreements with high schools. Meetings have commenced with Tech Prep and North High to establish articulation agreements.

- E. Explain the program's involvement with the Tech Prep consortia or other educational collaboratives, if relevant.**

Response:

The program has no involvement with Tech Prep consortia at this time.

F. Summary and Analysis: The Pipeline: QCC Feeders

Response:

The real and potential feeders are listed in IIIA. The Surgical Technology program is relatively new to Quinsigamond Community College and would benefit greatly from an increased understanding of the profession and job opportunities by the general public.

4. Role of the Program Advisory Committee

A. Is there an Active (meets at least once a year) advisory committee for this program?

Response:

An active advisory committee exists for the Surgical Technology program. It meets at least annually at the invitation of the Program Coordinator. The general purpose of this committee is to provide feedback to the program from the community, and from the program to the community.

B. If yes, what is the composition of the advisory committee? How are appointments made to the committee? List Members.

Response:

Appointments are made to the committee in the following manner:

Program faculty meets to identify clinicians or administrators in a wide variety of practice areas, and individuals from communities who are served by the program. Selected representatives from these areas are invited to the Board by letter from the Program Coordinator. These potential members are invited to serve on the Board, but no time limit is imposed. Should an existing Board member resign from the position, the faculty attempts to invite a replacement from a similar practice area or community.

(Appendix E for list of addresses)

Eleanor Bousquet, CST	UMass Memorial Medical Center
Thomas Cook, O.R. Director	Milford-Whitinsville Hospital
Nancy DiCicco, O.R. Educator	UMass Memorial Medical Center
Laura Fortin, O.R. Nurse Manager	Harrington Memorial Hospital
Donna Godin, CST	Worcester Medical Center
Elizabeth Lederman, O.R. Educator	Worcester Medical Center
Harrish Worah	QCC Program Graduate

C. Explain the roles and responsibilities of this committee

Response:

There are no formal Advisory Board member agreements, contracts, or position descriptions at this time. The roles and responsibilities of the committee members, as informally outlined by the Program Coordinator are:

- to provide feedback to the program from the community;
- to identify areas of strength and weakness in the program, as indicated by student performance in the clinical area and/or preparedness of the graduate for employment;
- to provide input on changes in the profession and possible strategies the program could implement to address these changes;
- to provide a means of involving people who are willing to provide assistance to the program;
- to provide an independent, unbiased forum to the program and the College.

D. If possible, cite examples of how committee input has had an impact on the program over the last 3-5 years.

Response:

The Surgical Technology program Advisory Board has met only twice, since the program is new to Quinsigamond Community College. Information exchange at the meetings has indicated that our students and graduates are well prepared to enter the profession. This is also seen by 100% of Quinsigamond Community College graduates being employed as Surgical Technologists.

E. Summary and Analysis: Role of the Program Advisory Committee

Response:

The Advisory Board to the Surgical Technology program provides valuable information that assists in the monitoring of the skills and standards of our program graduates. The Board also ensures the program faculty remains informed regarding changes in the work place. The present composition of the Board is satisfactory, but additional members would be welcomed.

5. Competition, Market, Strategies, and Enrollment Projections

A. Identify the program's primary competitors. Describe the process utilized and/or the rationale to determine the list of competitors.

Response:

The Surgical Technology program at Quinsigamond Community College has both internal and external competitors:

Internally, competitors are other health programs: Nurse Education, Radiologic Technology, Practical Nursing, Respiratory Care, Allied Dental Services, Paramedic Technology, Occupational Therapy, and Medical Assisting. Undecided students attend the Health Careers Center where they are provided with information on all the above programs.

Externally, there are several Surgical Technology programs within Massachusetts:

- Bunker Hill Community College
- Charles H. McCann Technical School
- Mass Bay Community College
- North Shore Community College
- Springfield Technical Community College

None of these programs is really a competitor of Quinsigamond Community College. These programs are supported by Boston and other communities within the state. Quinsigamond Community College's real competitor is New England Institute of Technology in Warrick, RI. Presently, we share clinical sites in Worcester, Milford, and Woonsocket.

B. Identify QCC's program strengths and market niche with respect to these competitors. In other words, what makes QCC's program the first choice?

Response:

The Surgical Technology program's strengths:

- The low cost: presently, \$91/credit
- The College's and program's excellent reputation
- The ability to complete the program in nine months
- 100% job placement in the field at graduation
- Employment needs for Surgical Technologists are expected to grow faster than average – a 21% to 35% increase (Source: Occupational Outlook Handbook 2002-2003 ed)

New England Institute of Technology:

- Cost is \$24,000 for the program
- Associate degree offered takes two years to complete
- Some distance to school from the Worcester area

Mass Bay Community College:

Although this is the closest Surgical Technology program to Quinsigamond Community College, it has not been a competitor. It is a small program and only recently certified. It attracts students from Framingham and the surrounding communities.

C. Explain the specific marketing strategies the College has employed with respect to this program over the last three to five years. Please do NOT list general marketing strategies here. Identify marketing efforts relevant to your program specifically.

Response:

Specific marketing strategies the College has employed with respect to the Surgical Technology program – none. However, over the past few years, the program has grown – in 2000, 3 graduates; in 2002, 4 graduates; in 2002, 6 graduates expected.

D. Describe how program faculty work with the admissions officers to recruit students into the program. If unknown, outline a recruitment plan with specific activities.

Response:

At this time, the faculty of the Surgical Technology program does not work with the Admissions Office to recruit students. Contact is maintained with the Health Careers Center.

To increase the number of students to the program, a vigorous recruitment plan is needed. Specific strategies might include:

- presentations by the Program Coordinator to high school counselors, including information about the profession and the job outlook;
- hold an open house;
- Program Coordinator receives names, telephone numbers, and addresses from the Admissions Office of persons who inquire about the Surgical Technology program for follow up.

E. Is the need for this program expected to grow or decline over the next five years? Please base your response on specific data.

Response:

The Occupational Outlook Handbook indicates that employment for Surgical Technologists is expected to grow faster than the average (21% to 35%).

The Massachusetts Occupational Employment, Wages, and Training Database indicates Surgical Technologist positions will increase by 25.5% (see Section IB)

Based upon this data, the program is expected to grow over the next five years. It is the only program in the Worcester area.

F. Based on analysis of information presented in this section, prepare enrollment projections for the next five years. Please describe what you believe is the optimum program size.

Response:

It is difficult to make enrollment projections for the next five years. However, based on statistics indicating an increased need for Surgical Technologists, the program should grow. Also, when the need increases, salaries increase and this should draw students. (Appendix F) Finally, at this time, no new programs are being started in Massachusetts. No school is in the process of receiving initial accreditation.

The program has grown each year it has been at Quinsigamond Community College. Ten is the target number for enrollment for fall 2002. There is a possibility of increasing the number of students to 15 next academic year due to the increased market demand. However, this number is dependent on the availability of clinical sites.

Specific strategies that the College might employ to increase enrollment include target marketing, advising students into the program in the Health Careers Center, distributing information about the profession and the program.

G. Summary and Analysis: Marketing Strategies, and Enrollment Projections

Response:

The Surgical Technology program at Quinsigamond Community College has minimal competition with other Surgical Technology programs in the state and out of state. (See VA) It is also in competition with other in-house health careers offered at Quinsigamond Community College.

Job opportunities are expected to increase. (See IB)

Presently, the program numbers have been increasing each year. Targeted marketing and advertising the program, as described in VD, would support this trend.

6. Opportunities for Program Expansion

A. Are there other directions this program might evolve in order to sustain currency and quality? Consider the following categories, but feel free to include other categories in your response:

Response:

- New certificate options within the program
- New concentrations within the program
- Different career ladder options within the program
- New Associate degree program possibilities
- Development of modularized courses
- Continuing/professional education in the field (i.e., CEU's, prep for recertification, etc.)
- Distance education course development
- More proactive job placement/support post-graduation
- Other.....

Available clinical site positions limits the program size. Presently, there are 10 clinical positions Available. However, due to a growing community need for Surgical Technologists, it may be possible to increase available clinical positions to 15. This would need to be investigated. Increased available lab time use would be required. Any greater increase would require expansion into Boston.

B. Summary and Analysis: Opportunities for Program Expansion

Response:

The current goal of the Surgical Technology program is for 10 students. Future expansion may be possible due to the increased need for Surgical Technologists.

The following changes to the curriculum might help attract students to fill the program:

- BIO 111 and BIO 112 requirement be changed to BIO 140 or BIO 111 and BIO 112.
- BIO 140 could be taken as a pre/corequisite during the first semester.

SUMMER SEMESTER

BIO 140 Introduction to the Human Body 4 cr

FIRST SEMESTER

SUR 101 Perioperative Issues 5 cr
SUR 111 Operating Room Techniques 4 cr
SUR 115 Asepsis 2 cr
SUR 121 Surgical Procedures I 3 cr
SUR 221 Surgical Procedures II 3 cr
SUR 230 Ethics 1 cr

SECOND SEMESTER

SUR 199 Clinical Externship I 4 cr
SUR 225 Advanced Clinical Procedures 3 cr
SUR 290 Clinical Externship II 6 cr
SUR 299 Advanced Clinical Externship 6 cr
Total Credits for Certificate 41cr

Section II: Curriculum, Instruction, Assessment, Program Credentials and Faculty

1. Foundations of the Program

A. Describe the rationale for offering the degree with respect to environmental scan information (job outlook) and its unique niche in its particular Employment sector.

Response:

This is the only Surgical Technologist program locally. According to the Massachusetts Occupational Employment, Wages, and Training Database, 1996-2002, there will be a 25.5% growth in Surgical Technologist positions. The Occupational Outlook Handbook Projects employment needs for Surgical Technologists to grow faster than average. Faster than average is defined as a 21% to 35% increase. Presently, there are many Surgical Technologist positions available. Students are being hired prior to graduation; therefore, there is a community need.

B. List degree or certificate objectives in measurable terms (6-8 overall statements)

Response:

PROGRAM GOALS/OBJECTIVES

The student:

- correlates the knowledge of anatomy, physiology, pathophysiology, and microbiology to his/her role as a Surgical Technologist;
- demonstrates a safe level of practice and knowledge in his/her role as a Surgical Technologist;
- identifies the purpose and principle for maintaining environmental control in the Operating Suite;
- identifies the various classifications of surgical armamentarium, including instrumentation, sutures, and equipment used during the perioperative experience;
- acquires understanding of the ethical, legal, moral, and medical values related to the patient and the Operating Room team during the perioperative experience; identifies the elements, action, and use of medications and anesthetic agents used during the perioperative experience;
- demonstrates and integrates knowledge of relevant medical terminology;
- demonstrates safe practice techniques regarding perioperative routines, patient transportation, positioning, and emergency procedures;
- demonstrates and integrates principles of surgical asepsis as part of the perioperative experience; and
- carries out the principles and techniques of medical asepsis as part of the perioperative experience.

C. Define expected graduation competencies or student outcomes. Your response should include reference to general education outcomes, employability or “umbrella competencies”, and career-related competencies or technical skills.

Response:

The Surgical Technology program is designed to prepare the beginning practitioner to possess the knowledge, skills, and abilities necessary to provide services in the Operating Room in the role of Surgical Technologist as part of the surgical team. Instruction includes components of basic sciences, Operating Room policies and procedures, safe patient care, Operating Room techniques, surgical procedures, and clinical practice.

The Core Curriculum for Surgical Technology, by the Association of Surgical Technologists, Inc., defines specific outcomes and performance objectives. A copy of this book is available in the office of the Program Coordinator.

D. Describe how the program supports the College's mission and purposes

Response:

The College's mission statement states that Quinsigamond Community College serves the diverse educational needs of Central Massachusetts by providing affordable, accessible, and high quality programming leading to transfer, career, and lifelong learning. This program fills a community need for trained Surgical Technologists. The program is affordable and accessible. The graduates are of high quality and desired for employment. This is seen by 100% employment at graduation.

E. Prepare a draft program mission statement

Response:

The Surgical Technology program prepares the beginning practitioner to possess the knowledge and skills necessary to administer patient care of the highest quality as part of the surgical team.

F. Summary and Analysis: Foundations of the Program

Response:

The need for Surgical Technologists is increasing. The Occupational Outlook Handbook Projects employment to grow faster than average – 21% to 35%. Quinsigamond Community College has the only Surgical Technology program locally. The objectives and desired outcomes of the program are defined by the Association of Surgical Technologists are necessary to maintain national certification. Students of this program are desired and hired by local employers. There has been 100% employment at graduation

2. Curriculum

- A. Based on the analysis of regional labor market needs, evaluate the current curriculum strengths and identify those areas that you believe require enhancement.**

Response:

Once again, the Massachusetts Occupational Employment, Wages, and Training Database, 1996-2006, projects a 25.5% growth in Surgical Technologist positions. The curriculum meets the standards required for program certification.

Presently, the prerequisites of BIO 111 Anatomy and Physiology I and BIO 112 Anatomy and Physiology II, are changed to BIO 140 Introduction to the Human Body. This will allow easier access into the program and still give the student the knowledge required.

The major area that needs enhancement is lab access. The students have use of the lab for only two days. This is a hands-on program. Ideally, there should be lecture, demonstration, and return demonstration.

At Quinsigamond Community College, discussion takes place on one day; then, several days later, the students observe and utilize the item. This disrupts the flow of the course. Students learn quicker and have a better understanding when they can see how something is used. Without practice, Surgical Technologists cannot improve their fine motor skills required in the Operating Room.

- B. Include the proposed curriculum for each of the current or proposed options in the program.**

Response:

N/A

- C. For each course in the revised curriculum, provide a description, statement of goals, major topics covered, primary tests or materials, and instructional technology used. (Please refer to the attached format.)**

Response:

N/A

- D. Describe the rationale for the course sequence in the revised program. A rationale of course sequence should be provided for the specific program related courses, the general education courses, electives, etc.**

Response:

The students take courses specific to this program only. The courses start with the basics and build until the program's goals and objectives are accomplished.

- E. Explain how the general education components are integrated with the department specific courses.**

Response:

N/A

- F. Does the curriculum incorporate "writing across the curriculum"? Provide an illustration, if applicable.**

Response:

Yes, the curriculum incorporates writing. A research paper is required as part of the curriculum.

G. Describe how the program meets the QCC philosophy of “high tech, high touch, high quality”.

Response:

The Quinsigamond Community College philosophy of “high tech, high touch, high quality” is a problem due to the lab situation (see Section II, II-A Curriculum) This program does not require a large space, only a dedicated room with a sink.

H. Does the program structure provide students with at least one elective choice? If no, is it possible to revise the curriculum so that there is at least one elective? Please explain your response.

Response:

No. The program structure does not provide students with at least one elective choice. This is a certificate program specific for Surgical Technologists. It is being looked at developing a way the student could get an Associate degree in with a Certificate in Surgical Technology.

I. Summary and Analysis: Description of Curriculum

Changing the BIO 111 and BIO 112 prerequisites to BIO 140 will allow easier access to the program. Overall, the curriculum is solid. This can be seen by program certification and employment of students. The one area that needs improvement is the lab facility. Finally, creating an Associate degree with a Certificate in Surgical Technology may draw other potential students. Presently, Surgical Technology students who want an Associate degree go to the New England Institute of Technology in Warwick, Rhode Island

3. Relevance of Instructional Methodologies, Assessment Strategies and Program Credentials

A. Summarize the INSTRUCTION METHODOLOGIES utilized in the program. What are the strengths and challenges of these methodologies?

Response:

The instructional methodologies utilized in the program are readings, lecture/discussion, handouts, audio-visual aids, demonstration, practice, return demonstration, and examinations. A dedicated lab would promote a better flow in teaching. Since it is a hands-on profession, lab access would allow the individual students to work on their specific areas of need.

B. Summarize the INSTRUCTIONAL METHODOLOGIES that would enhance students' learning. More specifically, are there additional ways in which instructional technology could enhance students' learning? Please explain your answer, and include how the college might support these efforts.

Response:

As discussed previously, the lab would be the greatest enhancement for student learning. The option for distance learning would be very limited because this is a hands-on program. Students need to work with equipment and supplies in order to become proficient enough to begin clinical. Clinical is a major part of this program.

There is one possibility where distance learning might be utilized. This would be for individuals who are working as Surgical Technologists, but not certified and wish to become certified. As of 2000, individuals can not take the certificate exam unless they graduated from a certified program. In the past, programs were not certified; e.g., Fanning Trade, or on-the- job training took place. These individuals can not take the certification exam. Certification is not required in Massachusetts, but is in many states.

C. Please provide a detailed assessment plan outlining the methodologies used for ongoing student assessment and final outcome assessment.

Response:

The Early Childhood Education program uses a variety of methodologies as ongoing assessment tools and for the final outcome assessment.

METHODOLOGY	STRENGTH	CHALLENGES
Written Exams	They are objective and give a good evaluation of the student's knowledge and understanding.	
Lab Exams	They are looking for the student to accomplish competently specific objectives.	Level of competency can sometimes be subjective. There is limited lab time available to the students. Practice increases level of proficiency.
Clinical Evaluations	Specific objectives defined.	Variations in preceptors and clinical sites.

D. Describe the strengths and challenges of each of the assessment methodologies listed above.

Response:

OBJECTIVE/GOAL	COURSE (taken to meet objective)	HOW OUTCOME ASSESSED
Correlates the knowledge of anatomy, physiology, pathophysiology, and microbiology to his/her role as a Surgical Technologist.	BIO 111 A&P I BIO 112 A&P II SUR 115 Asepsis SUR 121 Surgical Procedures I SUR 221 Surgical Procedures II SUR 225 Surgical Procedures III SUR 199 Clinical I SUR 290 Clinical II SUR 299 Clinical III	- written exams - knowledge/performance at clinical site

Demonstrates a safe level of practice and knowledge in his/her role as a Surgical Technologist.	SUR 101 Perioperative Issues SUR 111 Operating Room Techniques SUR 199 Clinical I SUR 290 Clinical II SUR 299 Clinical III	- written exams - lab exam - clinical evaluations
Identifies the purpose and principles for maintaining environmental control in the Operating Suite.	SUR 101 Perioperative Issues SUR 111 Operating Room Techniques SUR 115 Asepsis	- written exams
Identifies the various classifications of surgical armamentarium, including instrumentation, sutures, and equipment used during the perioperative experience.	SUR 111 Operating Room Techniques SUR 121 Surgical Procedures I SUR 221 Surgical Procedures II SUR 225 Surgical Procedures III SUR 199 Clinical I SUR 290 Clinical II SUR 299 Clinical III	- written exam - lab exam - clinical evaluations
Acquires understanding of the ethical, legal, moral, and medical values related to the patient and the Operating Room team during the perioperative experience.	SUR 101 Perioperative Issues SUR 230 Ethics	- written exams
Identifies the elements, action, and use of medications and anesthetic agents during the perioperative experience.	SUR 101 Perioperative Issues	- written exams
Demonstrates and integrates knowledge of relevant medical terminology.	SUR 101 Perioperative Issues SUR 111 Operating Room Techniques SUR 115 Asepsis SUR 121 Surgical Procedures I SUR 221 Surgical Procedures II SUR 225 Surgical Procedures III SUR 199 Clinical I SUR 290 Clinical II SUR 299 Clinical III	- written exams - lab exam - clinical evaluations
Demonstrates safe practice techniques regarding perioperative routines, patient transportation, positioning, and emergency procedures.	SUR 101 Perioperative Issues SUR 111 Operating Room Techniques SUR 199 Clinical I SUR 290 Clinical II SUR 299 Clinical III	- lab exam - clinical practice/evaluation
Demonstrates and integrates principles of surgical asepsis as part of the perioperative experiences.	SUR 115 Asepsis SUR 111 Operating Room Techniques SUR 199 Clinical I SUR 290 Clinical II SUR 299 Clinical III	- lab exam - clinical practice/evaluation
Carries out the principles and techniques of medical asepsis as part of the perioperative experience.	SUR 199 Clinical I SUR 290 Clinical II SUR 299 Clinical III	- clinical practice - clinical evaluation

E. Provide recommendations for additional methodologies to evaluate student achievement.

Response:

The students are thoroughly evaluated.

F. Has the program been evaluated by an EXTERNAL ACCREDITATION organization within the last five years?

Response:

Yes.

G. If yes, please provide name of the organization and date of last accreditation review. Did the program meet all of the accreditation requirements? If no, please explain. Attach the summary of the accrediting team's recommendations.

Response:

The Surgical Technology program was accredited in the year 2000 by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The Surgical Technology program met all the accreditation requirements.

H. If the program has not been evaluated externally, list any appropriate professional accreditation or licensure for the program that the College should pursue. (E.g., Industry certifications, professional associations, etc.)

Responses:

N/A

I. What changes, if any, might need to be considered to foster enhanced program quality?

Consider the following, but you need not limit your response:

- change in admission requirements
- inclusion of an internship or other work-based learning experience
- introduction of one or two electives to allow students to self-select learning opportunities
- development of a capstone course to synthesize the learning experience
- varied instructional methodologies
- enhanced assessment of student competencies
- better integration of technology applications
- specific instructional aides/software, etc.
- more coordination of faculty efforts, including the possibility of more full-time faculty
- attainment of program accreditation, certification, or licensure

Response:

There are a few things that might be considered to foster enhanced program quality; first, the prerequisites BIO 111 and BIO 112 Anatomy and Physiology I and II be changed to BIO 140 Introduction to the Human Body. This will promote easier access into the program and still provide the student with the knowledge required. Secondly, and most importantly, better lab access in the fall semester. Lecture and lab should not be separated. Ideally, there should be lecture, demonstration, and return demonstration. Students require time to practice what they learn to become proficient. (Please refer to Section II, II).

J. Summary and Analysis: Relevance

Response:

The curriculum meets the standards required for the program certificate. The program is accredited by CAAHEP (Commission on Accreditation of Allied Health Education Programs). Changing the prerequisite requirement of BIO 111 and BIO 112 to BIO 140 will promote easier access to the program. Finally, a dedicated lab/classroom would enhance the quality of the program.

4. Program Growth Opportunities

- A. In your opinion, would it be beneficial to develop a common core curriculum along related career programs? E.g., computer education, business, administrative support, electronics, etc.) Please explain your answer.**

Response:

N/A

- B. Describe, in detail, all potential areas for program growth. Include, but do not limit your response to the following:**

- Career Ladder Potential
- New Degree or Certificate Options
- Professional/continuing Education Opportunities
- Professional Recertification Preparation/Test
- Flexible Delivery Options
- Enhanced Instructional Methodologies
- Improving Assessment for Student Competencies
- Distance Learning Course Development

Response:

A potential area for program growth would be for students to be able to get an Associate degree with a Certificate in Surgical Technology. (Refer to Section II, #IIIH)

C. Summary and Analysis: Program Growth Opportunities

Response:

As stated previously, an Associate degree with a Certificate in Surgical Technology is a potential area of growth.

5. Students and Program Assessment (Review relevant data over the last five year period.)

- A. What have been the incoming students' average scores on QCC placement tests each year for the last five years?**

Response:

Unable to obtain

- B. What is the graduation students' average college GPAs over the last five years? GPAs in major courses? Please describe the additional measures of central tendencies: i.e. median, mode, etc.**

Response:

This program has had only two graduating classes: 2000 – GPA 3.34; 2001 – GPA 3.42

- C. If relevant, how have students performed during their field placements or related work based learning experiences?**

Response:

All graduate students have met standards of performance during their clinical placement

- D. Indicate the number of students who have transferred to four-year programs, if applicable.**

Response:

N/A

- E. Track the average earnings of program graduates each year for the three years immediately following graduation.**

Response:

This data is not available. Locally, starting salaries for non-experienced Surgical Technologists range from \$12/hr to \$14.50/hr. They are also provided with excellent benefits; e.g., health insurance, dental, vacation pay, sick pay, etc.

- F. Provide a summary of the program's enrollment patterns over the last five years.**

Response:

2000 – 6 enrolled – 3 graduated
2001 – 5 enrolled – 4 graduated
2002 – 6 enrolled – 6 graduated

- G. Indicate the program retention rate over the same period. Note: Consider two cohorts: fall to spring (same year); fall to Following Fall (one year).**

Response:

The program retention rate from Fall to Spring:

- 2000 – 50%
- 2001 – 80%
- 2002 – 100%

- H. Determine the average number of semesters it takes for students to complete the program.**

Response:

Once accepted into the program, it takes two semesters for a student to complete the Certificate.

I. Define indicators of program quality. Describe strategies used to assess the success of the program in achieving its stated objects.

Response:

There are many indicators of program quality. During the program, written exams, demonstrations, and clinical evaluation are used. Near completion of the program, as of 2002, the Association of Surgical Technologists requires all students take a Program Assessment Exam. All Quinsigamond Community College students passed (100%) with a mean score of 85.33. After completion of the program, graduate surveys and employee evaluations are done (Appendix B & C); also, it is a fact that employers hire Quinsigamond Community College students.

J. Summary and Analysis: Program Assessment

Response:

The Surgical Technology program at Quinsigamond Community College will graduate its third class in May 2002. There has been a 100% pass rate of students taking the Program Assessment Exam. Finally, and most importantly, there has been a 100% hire rate of the Surgical Technology students.

6. Faculty

- A. Is the current faculty able to adequately address the instructional needs of all courses, both general and specialty, in the program?**

Response:

Yes, the current faculty is able to adequately address the instructional needs of the program.

- B. Is institutional support for upgrading faculty credentials required? If yes, please explain the kind of upgrade required and approximate cost associated with the upgrade?**

Response:

Institutional support for upgrading faculty credentials is not required.

- C. Over the last five years, what has been the ration between full-time and part time faculty within this program?**

Response:

<u>Year</u>	<u>Full Time Faculty</u>	<u>Part Time Faculty</u>
2000	31 cr	6 cr
2001	31 cr	16 cr
2002	32 cr	5 cr

- D. Describe how adjunct faculty are integrated into the existing program.**

Response:

The part-time faculty work with the Program Coordinator to develop the course curriculum based on the Core Curriculum for Surgical Technology.

- E. Should the College employ additional full or part-time faculty in this discipline? Provide a detailed rationale.**

Response:

No. The staffing is very adequate for the program.

- F. Describe how all faculty members contribute to curriculum development and over all program cohesiveness. Do ALL faculty members, both full and part-time have an opportunity to contribute to curriculum development?**

Response:

The Program Coordinator oversees all curriculum development. Part-time staff is given desired outcomes for the course. The staff then develops the curriculum needed to accomplish these outcomes. The Association of Surgical Technologists, Inc. has established very specific required outcomes in the Core Curriculum for Surgical Technology.

- G. Does the current level of support staff meet the needs of the program faculty? Please explain your answer.**

Response:

Yes. The support staff has always met the needs of the program.

H. Summary and Analysis: Faculty

Response:

The staffing for the Surgical Technology program is good. The Program Coordinator works closely with part-time staff to oversee curriculum development. This maintains overall program cohesiveness.

SECTION III: Institutional Support and Other Program Resources

1. **Program Support (Please note: Use this section to reflect upon what institutional supports would useful and why).**

A. **List targeted program marketing and recruitment strategies employed over the last two years? In your opinion, are they appropriate to sustain strong enrollment?**

Response:

There have been no program marketing and recruitment strategies employed over the last two years.

B. **Provide recommendations for new or additional marketing or recruitment strategies.**

Response:

Quinsigamond Community College needs to advertise the Surgical Technology program's move from the Worcester Technical Institute to the College. The community needs to know where these programs exist.

C. **Does the program have sufficient linkages with business, community-based organizations, other colleges and universities, or K-12 public schools? Please explain and cite specific examples. Present in chart form as explained in the guidelines for C & D, opposite page.**

Response:

The Program Coordinator has sufficient linkages with area hospitals. Students are placed in area hospitals for their clinical experiences. The Program Coordinator visits each site weekly.

D. **Provide suggestions for improved program linkages. What, if any, assistance do the program faculty need in order to facilitate these linkages effectively?**

Response:

Quinsigamond Community College could advertise programs in local hospitals. Many students work in hospitals and are looking for an opportunity to better their jobs. Also, other potential students are children, friends, or relatives of people who work in hospitals.

E. **Does the program have appropriate equipment to meet the instructional demands of the program? (e.g., medical equipment, laboratory supplies, computer hardware and/or peripherals)**

Response:

Overall, the program has appropriate equipment to meet its instructional demands. However, students are unable to utilize the equipment to the extent they should since lab access is limited.

F. **If no, provide a list of required equipment purchases or upgrades. Please present this list in prioritized fashion and identify immediacy of the priority.**

Response:

N/A

G. **Summary and Analysis: Program Supports**

Response:

N/A

2. Academic Supports

A. Are there sufficient instructional/research resources to support student learning in this program?

Response:

There are sufficient instructional/research resources to support student learning. The program has purchased many videos and is able to borrow from several hospitals. The Library has purchased books, although the students do not utilize the Library. When asked if they use the Quinsigamond Community College Library, the students' response is negative. They get their information on-line or from the medical library at their clinical site. It is a matter of convenience.

B. Assess the overall currency of the current collection of books, periodicals, and audiovisual materials in the library. Recommend new acquisitions and/or periodical subscriptions. In addition, please work with the library staff to weed outdated materials from the library's current holdings.

Response:

The materials in the Library are current since the program has only been at Quinsigamond Community College for three years.

C. Are there sufficient technology resources, specifically software and hardware resources? Are these resources available and accessible to students? To faculty?

Response:

Yes, there are sufficient technology resources.

D. Provide a list of recommended technology acquisitions (i.e., software, hardware, PC projection units, etc.) Please prioritize this list and identify the immediacy of the priority.

Response:

This is not a priority; lab access is the program's priority.

E. Does the Individualized Learning Center provide ample academic support services for students in the program?

Response:

N/A

F. Provide recommendations for improved academic support services.

Response:

As stated previously, a dedicated lab would enhance the students' learning. Ideally, there should be lecture, demonstration, and return demonstration. Students become proficient by practicing. Presently, they do not have sufficient time to practice.

G. Summary and Analysis: Academic Supports

Response:

There are sufficient instructional/research resources to support student learning. The area that is lacking is a dedicated lab. This is probably the most important part of this program, yet it does not exist.

3. Physical Facilities

- A. Are the current physical facilities sufficient from an instructional perspective? If no, explain and provide recommendations.**

Response:

No. A dedicated lab is required for this program. As stated many times, this is a hands-on program. Students only become proficient with repeated practice. They can not learn how to handle instruments from a book. Quinsigamond Community College students' hands-on skills are adequate when they could be great.

- B. Are the current physical facilities sufficient from a competitive perspective? If no, explain and provide recommendations.**

Response:

No. The current physical facilities are not sufficient from a competitive perspective. This is the only school in Massachusetts or Rhode Island that does not have a lab.

- C. Given enrollment projections, will additional classrooms or laboratories be required? If yes, please specify the requirements and identify immediacy of the need.**

Response:

The only need is the one lab. This space does not need to be large. It requires a scrub sink, space to set up an Operating Room, storage cabinets, and desks for students.

D. Summary and Analysis: Physical Facilities

Response:

The physical facilities are not sufficient from an instructional perspective. A dedicated lab space is required to teach the students. This is the only local program that does not have lab space.

4. Program Financing

- A. Has the program's funding been sufficient over the last five years? Please explain your response.**

Response:

Yes. The program funding has been sufficient.

- B. Provide an analysis of the cost of this program. Be sure to include ALL costs. (For example, costs associated with instructional salaries, space, lost opportunity costs, equipment rentals and/or maintenance, etc.**

Response:

Unable to do with the available resources.

- C. Based on your enrollment projections, are there projected increases or decreases in the budgetary requirements of this program over the next five years?**

Response:

The major one-time cost would be to build a dedicated laboratory space that would involve the purchase and installation of a scrub sink with required plumbing, etc. and the purchase of cabinetry to store required supplies.

Budgetary requirements of this program should not change significantly. The size of the program is restricted due to availability of clinical sites for training.

D. Summary and Analysis: Program Financing

Response:

The Surgical Technology program financing is sufficient. The budgetary requirements are not expected to change.

Section IV: Executive Summary of Findings

1. Program Fact Sheet

- A. **Briefly summarize the program highlights and recommendations for program improvement (2-4 pages). Provide a summary of action steps that prioritize what needs to be done with an estimated timeline for completion. Remember that this document will be presented to the QCC Board of Trustees and the President's staff as a tool for negotiating necessary program resources.**

Response:

- Surgical Technologists are integral members of the medical team in the operating room. Surgical Technologists work under the supervision of a physician or a registered nurse and are involved in all aspects of perioperative care.
- Most Surgical Technologists are employed by hospitals and work in the operating rooms, delivery rooms, or central sterile. Others are employed in clinics and surgical centers. Some work for physicians and dentists who perform outpatient surgery. A few are hired directly by surgeons as private scrubs.
- Employment opportunities for Surgical Technologists are expected to increase. According to the Occupational Outlook Handbook, employment for Surgical Technologists is expected to grow faster than the average. Faster than average growth is projected as a 21% to 35% increase in employment needs. (Source: Occupational Outlook Handbook, 2002-2003 ed., www.bls.gov). The Massachusetts Occupational Employment, Wages, and Training Database, 1996-2006, projects Surgical Technologist employment will increase by 25.5%.

B. **Graduate Competencies**

The student:

- Correlates the knowledge of anatomy, physiology, pathophysiology, and microbiology to his/her role as a Surgical Technologist
- Demonstrates a safe level of practice and knowledge in his/her role as a Surgical Technologist
- Identifies the various classifications of surgical armamentarium, including instrumentation, sutures, and equipment used during the perioperative experience
- Acquires understanding of the ethical, legal, moral, and medical values related to the patient and the operating room team during the perioperative experience
- Identifies the elements, action, and use of medications and anesthetic agents used during the perioperative experience
- Demonstrates and integrates knowledge of relevant medical terminology
- Demonstrates safe practice techniques regarding perioperative routines, patient transportation, positioning, and emergency procedures
- Demonstrates and integrates principles of surgical asepsis as part of the perioperative experience
- Carries out the principles and techniques of medical asepsis as part of the perioperative experience

C. **Unique Features/benefits of the Quinsigamond Community College Program**

Quinsigamond Community College is the only Surgical Technologist program to serve Worcester and its surrounding communities. There has been 100% employment of the graduates.

2. **Program Curriculum**

- The program curriculum is designed to meet the requirements to maintain national certification. As of 2002, all students in certified Surgical Technology programs are required to take a national Program Assessment Examination prior to graduation. One hundred percent of Quinsigamond Community College students passed the exam.
- The prerequisites of BIO 111 Anatomy & Physiology I and BIO 112 Anatomy & Physiology II have been changed to BIO 140 Introduction to the Human Body to allow easier access into the program and still give the students the knowledge required.

3. Curriculum Plan

Summer Semester

BIO 140 Introduction to the Human Body 4 cr

First Semester

SUR 101 Perioperative Issues 5 cr

SUR 111 Operating Room Techniques 4 cr

SUR 115 Asepsis 2 cr

SUR 221 Surgical Procedures II 3 cr

SUR 230 Ethics 1 cr

Second Semester

SUR 199 Clinical Externship I 4 cr

SUR 225 Advanced Clinical Procedures 3 cr

SUR 290 Clinical Externship II 6 cr

SUR 299 Advanced Clinical Externship 6 cr

Total Credits for Certificate 41 cr

4. Prioritized List of Program Needs

A. Dedicated Lab/Classroom

- The Surgical Technology program is a hands-on program. Presently, students have use of the lab for only two days per week. Ideally, there should be lecture, demonstration, practice, and return demonstration.
- The degree and certificate programs that resulted from the Worcester Technical Institute integration continue to require stronger, more strategic enrollment management. The community needs to know the Surgical Technology program is now offered at QCC.
- The College should provide adequate funding for the program coordinator to participate in the annual professional conference. Approximate cost is \$1500.