

5-4-1992

# Proposal for a Bachelor of Science Degree in Medical Technology

The College at Brockport, College Senate

Follow this and additional works at: [https://digitalcommons.brockport.edu/senate\\_resolutions](https://digitalcommons.brockport.edu/senate_resolutions)



Part of the [Higher Education Commons](#)

---

## Repository Citation

The College at Brockport, College Senate, "Proposal for a Bachelor of Science Degree in Medical Technology" (1992). *College Senate Resolutions*. 874.

[https://digitalcommons.brockport.edu/senate\\_resolutions/874](https://digitalcommons.brockport.edu/senate_resolutions/874)

This Resolution is brought to you for free and open access by Digital Commons @Brockport. It has been accepted for inclusion in College Senate Resolutions by an authorized administrator of Digital Commons @Brockport. For more information, please contact [kmyers@brockport.edu](mailto:kmyers@brockport.edu).

Resolution #15 1991-92

TO: President John E. Van de Wetering

FROM: The Faculty Senate Meeting on 5/4-5/11/92  
(Date)

RE: X I. Formal Resolution (Act of Determination)  
II. Recommendation (Urging the fitness of)  
III. Other (Notice, Request, Report, etc.)  
For your information

SUBJECT: Proposal for a Bachelor of Science Degree in  
Medical Technology



Signed Edw. J. Van Duzer  
(For the Senate)

Date Sent 6-7-92

TO: The Faculty Senate

FROM: President John E. Van de Wetering

RE: I. Decision and Action Taken on Formal Resolution

a. Accepted. Effective Date Upon Approval by S&D

b. Deferred for discussion with the Faculty Senate on \_\_\_\_\_

c. Unacceptable for the reasons contained in the attached explanation

II, III.

- a. Received and acknowledged
- b. Comment:

DISTRIBUTION: See attached list  
(Call Faculty Senate for  
full resolution)

Distribution Date 6/10/92 Signed: [Signature]  
(President of the College)

Department of Biological Sciences  
(Revised 27 April 1992)

PROPOSAL FOR A

BACHELOR OF SCIENCE DEGREE

IN

MEDICAL TECHNOLOGY

A Medical Technologist is a health-care professional who works in a clinical laboratory. The work of this profession involves testing of body fluids and tissues for diagnostic and therapy management purposes. The responsibilities are generally divided among these five areas: blood banking, chemistry, hematology, immunology and microbiology.

Medical Technology has been a recognized allied health profession for nearly 60 years. Entrance into the field is controlled by a Board of Registry under the auspices of the American Association of Clinical Pathologists. This board sets college course and clinical training requirements and administers a national examination for the certification of Medical Technologists.

The usual path to certification involves three years of course work at a college or university taking the courses prescribed by the Board of Registry. The fourth year is spent in a 12 month internship at a hospital with an approved School of Medical Technology. By agreement between the hospital and the college, the student is given about 34 credit hours for the internship year and is awarded a Bachelor of Science degree in Medical Technology by the degree-granting institution. This also qualifies the student to take the certification exam the passing of which is required to practice in the profession.



### Rationale for Offering Medical Technology at Brockport

The fastest growing service industry in the United States today is health care, with over 6.7 million workers employed in medical services. As our population ages, it has been estimated that by the late 1990's health care will be the number one service industry in the country. Medical Technology has been a particularly expanding field as physicians rely to an ever greater extent on laboratory techniques to aid in diagnosis and in monitoring therapeutic measures. The need for trained personnel in Medical Technology is particularly acute in New York, New England and the southwest. A recent survey revealed the existence of 6-8 full-time equivalent positions available per laboratory in New England, and 6 such positions in New York. Besides clinical laboratories, many Medical Technologists find employment in industry, particularly in pharmaceutical companies.

A program in Medical Technology will offer an attractive career choice to Brockport students. It is not anticipated that large numbers of students will complete this program; hospital schools are limited in the number of students they may accept, and initially we expect to contract only with Rochester General Hospital. As an indication of potential numbers, Plattsburgh has 8-12 students enter the fourth year internship each year. If student demand should warrant, it would be possible to establish contract agreements with other hospitals having approved schools. We may also establish a transfer agreement with Buffalo's 2+2 program. However, in spite of the presumed small number of graduates the program is likely to produce, it will strengthen our present programs in Biology and Chemistry by attracting capable, highly motivated students, some of whom will probably elect to complete a traditional major in Biology or Chemistry.

### Costs

No courses will be needed in addition to those already offered at Brockport. It is estimated that the maximum number of students receiving degrees will be about 6 per year. It can be assumed that some of these students would have been at Brockport anyway, majoring in Biology or Chemistry. Therefore, it is within reason to expect that 4 new students, in each year of the program (12 altogether), will be taking courses at Brockport as a result of this program. Increased costs are reckoned based on laboratory courses. The average cost per student (1988/89) in the seven Biology courses required in this program was \$10.65. This cost is here extrapolated to cover Chemistry and Physics laboratory courses as well; including these, there are 13 required laboratory courses in the program. The total additional cost of this program should therefore be (based on 1988/89 costs) 4 students x 13 courses x \$10.65 = \$553.80 per year. This breaks down to \$298.20 for Biology, \$170.40 for Chemistry, and \$85.20 for Physics. If there were to be eight students per year the cost will be about \$1100/year, or if 12 the cost will be about \$1600/year.

It should also be pointed out that any additional students will be competing for space in limited enrollment courses (lab courses) with students from Nursing and Health Science. These courses are: BIO 321 (A&P I), 322 (A&P II), and 323 (Microbiology).

A clear payback for these costs will be that, it will increase career options for our students and it will attract a few high parameter students to Brockport.



PROPOSED CATALOG DESCRIPTION  
FOR THE  
BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY

**I. Major in Medical Technology**

The major in medical technology enables a student to obtain the B.S. degree in Medical Technology from Brockport at the end of a four-year program, including three academic years here and a fourth calendar year at a school of medical technology approved by the College. During the first three years each student fulfills the general education requirements and the major requirements. The fourth year at a school of medical technology includes both theoretical and practical work in a medical laboratory. The B.S. degree is awarded upon the satisfactory completion of the requirements of both institutions. Upon completion of the internship, the student is eligible to take the National Registry Examination which must be passed in order to be qualified as a Registered Medical Technologist. The program is currently offered in affiliation with Rochester General Hospital.

Students should declare a major in Medical Technology by the end of the freshman year to assure proper advisement. Majors are declared with the Academic Advisement Coordinator, Room 103, Lennon Hall. A formal application to the School of Medical Technology is made at the beginning of the junior year. Based on the academic record for the freshman and sophomore year and successful completion of BIO 201, BIO 202, BIO 302, BIO 321, BIO 322, CHM 205, CHM 206 and CHM 305 and an interview, the decision is made as to which applicants will be formally admitted into the program. This decision is competitive and made by Rochester General Hospital School of Medical Technology. The remaining will be alternates and placed on a "waiting list" in rank order. The College does not assume responsibility for placing students in an approved in-hospital training program. The Coordinator of Medical Technology at Brockport, Dr. Delmont Smith, makes available to students a list of accredited schools of medical technology in the country.

Proposed Program

The course of study at Brockport and at Rochester General Hospital is outlined in the attached catalog description. This program meets the requirements of the accrediting agency which are as follows:

Chemistry - 16 semester hours to include organic and/or biochemistry.

Mathematics - minimum of one college level course in mathematics not remedial.

Recommended Courses - statistics, physics\*, management.

The prescription of courses required for entrance to the clinical year, plus general education requirements means that there is relatively little variation among Medical Technology programs in different colleges. The proposed program is very similar to those offered by Plattsburgh and Geneseo, both of which have been in operation for several years.

Attachments:

1. Proposed Catalog Description for the Bachelor of Science in Medical Technology.
2. Draft agreement between SUNY College at Brockport and Rochester General Hospital.
3. Listing of accredited programs in New York State hospitals.
4. Letter from Joseph Rizzo, Rochester General Hospital.
5. Letter from Ruth E. Baines, Assistant Provost.
6. List of colleges currently affiliated with Rochester General.

\*General Physics II required by Brockport

## II. Courses at Brockport

### Required Courses Credits

BIO 201	Biology I - Botany	4
BIO 202	Biology II - Zoology	4
BIO 301	Cell Biology	4
BIO 302	Genetics	4
BIO 321	Anatomy and Physiology I	4
BIO 322	Anatomy and Physiology II	4
BIO 323	Microbiology	4
BIO 414	Immunology	2
CHM 205	College Chemistry I	4
CHM 206	College Chemistry II	4
CHM 305	Organic Chemistry I	4
CHM 306	Organic Chemistry II	4
	or	
CHM 303	Quantitative Analysis	4
PHS 116	General Physics II	4
MTH 121	College Algebra	3
	or	
MTH 122	Precalculus	3
	or	
MTH 201	Calculus I	3

### Recommended Courses

SOC 200	Social Statistics	3
PHS 115	General Physics I	4
BUS 365	Princ. of Management	3

### Recommended General Education Courses

GEP 100	APS	1
ENL 112		3
HLS 306	Contemporary Issues in Health	3
Breadth Component courses		24
Computer literacy requirement is met by SOC 200; Contemporary Issues is met by HLS 306		3
A minimum of 90 credits is to be completed at Brockport during the first 3 years of the program.		



III. Suggested Program for Brockport courses

<u>Semester 1</u>	<u>Credits</u>	<u>Semester 2</u>	<u>Credits</u>
BIO 201 Botany*	4	BIO 202 Zoology*	4
CHM 205 College Chem I*4		CHM 206 College Chem II* 4	
GEP 100 APS	1	MTH 121 or 122 or 201*	3
ENL 112 College Comp	3	Writing Course (TBA)	3
Breadth component	<u>3</u>	Breadth	<u>3</u>
	15		17
<u>Semester 3</u>		<u>Semester 4</u>	
BIO 302 Genetics*	4	CHM 306 or 303*	4
CHM 305 Organic Chem I*4		BIO 322 A & P II*	4
BIO 321 A&P I*	4	BUS 365 Prin of Manage.**3	
Breadth	<u>3</u>	Breadth	<u>3</u>
	15		14
<u>Semester 5</u>		<u>Semester 6</u>	
BIO 323 Microbiology*	4	BIO 301 Cell Biology*	4
BIO 414 Immunology*	2	PHS 116 Gen Physics II*	4
PHS 115 Gen Physics**	4	SOC 200 Soc Statistics**	3
HLS 306 Cont Iss in Health**	3	Breadth	3
Breadth	<u>3</u>	Elective	<u>3</u>
	16		17

\* required courses in Medical Technology  
 \*\*recommended courses

IV. Courses in an approved school of medical technology

Microbiology - Serology	9.33
Clinical Chemistry	8.66
Hematology	6.66
Blood Bank	3.33
Urinalysis/Clinical Microscopy	2.66
Principles of Disease	2.00
Electives	<u>2.00</u>
	34.64