GUTHRIE ROBERT PACKER HOSPITAL

educational programs

CATALOG

2020-2021

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Introduction

The Guthrie Robert Packer Hospital Campus in Sayre, PA, offers an excellent environment for all health education students. Our nationally renowned 15-acre facility is located in scenic Northeastern Pennsylvania. Our university medical center provides the medical sophistication of a metropolitan hospital with the advantages of a charming rural community. Sayre, PA is within driving distance to regional cities such as Corning, Ithaca, Elmira and Binghamton, NY, and Scranton and Philadelphia, PA. The Finger Lake and Adirondack Mountain regions of New York State and Pocono Mountains of Pennsylvania are also within reach. The RPH/Guthrie Campus is easily reached by all major interstates.

Guthrie Healthcare System

Guthrie Robert Packer Hospital is the largest hospital in the Guthrie Health-care System, which is also comprised of Guthrie Corning Hospital, Corning, NY, Guthrie Troy Community Hospital, Troy, PA, Guthrie Towanda Memorial Hospital, Towanda, PA, a long term care facility, home care entities, and a research education component.

GHS offers many services in addition to acute care including: skilled nursing care, ventilator management, home health care, and hospice care.

In addition to its support of allied health education programs, the Guthrie Foundation for Education and Research supports Guthrie's medical education programs and provides patients with access to more than 60 clinical trials related to the treatment of heart disease, cancer and other conditions.

Guthrie Enterprises is a for profit division. Its purpose is to provide revenue to further the scientific, charitable mission of Guthrie Healthcare System.



Guthrie's campus in Sayre, PA.

Guthrie Robert Packer Hospital

Guthrie Robert Packer Hospital is a 238-bed tertiary care teaching hospital. The hospital is the regional center for extracorporeal shock wave lithotripsy, and offers corneal transplants, laser surgery, open-heart surgery, coronary electrophysiology, coronary angioplasty, cancer care and advanced and minimally invasive surgery. The hospital also has First Impressions Birthing Center, a 12-unit, single-room maternity care center that offers a family-oriented atmosphere.

Guthrie Robert Packer Hospital is staffed by the physicians of the Guthrie Clinic, a multispecialty medical group practice of more than 220 physicians, who practice in over 22 regional offices in Pennsylvania and New York State.

Education Complex

All health education students are educated through the Guthrie Robert Packer Department of Health Sciences and Guthrie Robert Packer Hospital. Classroom, laboratory, and clinical experiences include educational sites at all GHS entities and affiliates for students studying radiologic technology, respiratory therapy, medical technology and nursing. The campus also offers newly-renovated clinical laboratory facilities.

Classrooms and modern science and nursing laboratories are located in the Patterson Education Building and Bird Sumner Administration Building. These facilities are fully air-conditioned and are equipped with the latest audio-visual teaching aids. A duo-headed binocular microscope is used for individual instruction in the clinical laboratory. A 200-seat auditorium is also located in the Patterson Building.

Working in concert with Guthrie Clinic physicians, residencies in family practice, internal medicine and general surgery are maintained.

In addition, each year, junior and senior medical students from Drexel University Medical School, the State University of New York Upstate Medical University, Syracuse, NY (Clinical Campus, Binghamton, NY), Lake Erie College of Osteopathic Medicine, and Jefferson Medical College spend a portion of their clinical training time on the Guthrie campus in Sayre.

Health Science Library

The William C. Beck, M.D., Health Science Library and Resource Center, located on the Guthrie Sayre campus, is one of the finer hospital-based libraries on the eastern seaboard outside of a medical school.

The Beck Library is open 24 hours a day and its holdings include over 700 medical, nursing, and allied health periodicals. It has over 6,000 monographs, and purchases the latest books and the most recent editions of standard texts.

The collection of the Beck Library is enhanced by its participation in automated interlibrary loan systems that make available the holdings of a wide variety of local, regional, and national libraries. In this way the library has expanded access not only to the literature of medicine, nursing, and allied health but also to cognate fields such as psychology, education, and management. The library staff uses online and CD-ROM databases to perform timely and comprehensive searches of this literature. Items of general interest are available through affiliation with Mansfield University, which offers state-of-the-art technology, as well as a newly-renovated library facility (North Hall).

Medical librarians and assistants are available to aid students in finding appropriate materials and instruct them in the use of computerized technologies. Textbooks and supplies may be purchased at the library bookstore, Murph's Mart.

Computer Access

Guthrie recognizes the value computers bring to students in academic environments. All dormitory rooms are wired to provide Internet access for those students who have their own computers. In addition, several computer labs are available for use by students on Guthrie's Sayre campus.

Admission Requirements

Specific requirements for each program are listed under the course descriptions. However, all applicants for each of the programs will receive equal consideration for admission regardless of race, gender, age, creed, national origin, marital status, or handicap.

Tuition and other charges are subject to change without notice in each of the schools in this catalog.

Insurance Requirements

All students are required to carry hospitalization insurance and professional liability insurance. During illness, the student can be seen in the Family Practice Center, Guthrie Clinic, Sayre, PA.



Student Housing

The hospital maintains a student residence. Students enrolled in the health care programs may request to live in the residence, as rooms are available. These rooms are carpeted and air-conditioned. Many students choose to reside in off-campus housing within walking distance from the campus. Apartments and furnished rooms are also available in the residential area near the hospital; however, they are not affiliated with GHS. Student parking is offered near the hospital campus as well.

Meals

Students may elect to purchase their meals in the hospital cafeteria. Meal plans are available for all programs. Restaurants are available within walking distance of the campus and kitchen facilities are also offered in the student residence. The kitchen is equipped with a stove, refrigerator, microwaves, ice maker and popcorn popper.

Recreation

The student residence includes a fitness center, Club Guthrie, which is available to all health education students. Tectrix exercycles, stairsteppers, PreCor treadmills and PreCor Elliptical crosstrainers are available for cardio-vascular workouts. A Hoist multi-gym and a free weight area are also offered. Available in the weight area are free weights ranging from five to 50 pounds. The fitness center also includes TV's, towels and a changing area. The cost of the fitness center is included in the student activity fee. There are also a number of fitness programs that are implemented on-campus throughout the year by the GHS Employee Wellness Department. Students are welcome to sign up for any or all the programs; however, an additional fee may be required.

For more information about Guthrie Robert Packer Hospital or Guthrie Clinic, please visit Guthrie's website at www.guthrie.org.

Mansfield University Respiratory Therapy Associate

Degree Program with Broome Community College and Corning Community College Transfer Options

Faculty

Sheila Merrill, BS, RRT	Program Director
Susan Ferrito, MSEd, RRT	Director of Clinical Education
Douglas Greer, RRT	Clinical Instructor, Guthrie Robert Packer Hospital, Sayre, PA
James Walsh, MD	Medical Director and Chief of Pulmonary Medicine, Guthrie Clinic, Sayre, PA
Rebecca Anstadt, RRT-NPS	Clinical Preceptor, Geisinger Medical Center, Danville, PA
Kelly Cresci, RRT	Clinical Preceptor, Geisinger Medical Center, Danville, PA
Rita Cook, RRT, RPST	ABG and PFT Lab Supervisor, Guthrie Robert Packer Hospital
Patricia Douglas, RRT	Home Care Clinical Preceptor, Guthrie Med Supply Depot, Sayre, PA
Deepa Kuchelan, MD	Associate in Pulmonary Medicine, Guthrie Clinic, Sayre PA
Michelle Kettle, RRT	Clinical Preceptor, United Health Services, Johnson City, NY
Mike Kranz, RRT	Pulmonary Rehabilitation Specialist, Guthrie Robert Packer Hospital, Sayre, PA
Kim Norville, MD	Associate in Pulmonary Medicine, Guthrie Clinic, Sayre, PA
Jason Pierce, RRT-NPS	Clinical Preceptor, Geisinger Medical Center, Danville, PA
Bruce Robbins, RRT	Clinical Preceptor, United Health Services, Johnson City, NY
Linda Stanis, RRT	Clinical Preceptor, United Health Services, Johnson City, NY
Laurie Wallace, RRT	Clinical Educator, Geisinger Medical Center, Danville, PA

The Respiratory Therapist

Respiratory therapists are energetic, caring individuals making a difference in the lives of others. As life support specialists, they assist a variety of patients with diagnostic, therapeutic, and rehabilitative services. Their patients suffer from disorders like asthma, emphysema, cystic fibrosis, pneumonia, heart failure, major surgery, or major trauma. In many hospitals, therapists provide care following physician-approved protocols. Under such a protocol, the therapist begins by assessing the patient's needs through physical exam and a thorough review of other clinical data such as ECG, chest x-ray and laboratory blood test results. From this information, the therapist selects a treatment regimen, implements the therapy, adjusts it as needed, and discontinues treatment at the appropriate time. Respiratory therapists deliver many different types of treatment such as inhaled medications, lung hyperinflation therapy, chest physical therapy, artificial airway care, and continuous mechanical ventilation. To aid in diagnosis of a patient's disease, the therapist may take

a sample of the patient's arterial blood to determine the levels of oxygen and carbon dioxide, or administer various tests of breathing function, at the bedside or in a pulmonary function laboratory. When internal examination of the lungs is indicated, the therapist assists the physician with a bronchoscopy under local anesthesia, taking samples of lung tissue and fluids as necessary.

Respiratory Therapists may specialize in such areas as critical care,

perinatal and pediatric respiratory care, cardiopulmonary diagnostics, pulmonary rehabilitation, sleep diagnostics, patient transport, clinical research, education, and management. The successful respiratory therapist is someone who enjoys working with their hands, head, and heart, giving comfort to others in a fast-paced, challenging environment.



Program Overview

The Respiratory Therapy Program is jointly sponsored by Mansfield University, a member of the Pennsylvania State Higher Education System, and Robert Packer Hospital, a tertiary care teaching hospital, Level II Regional Trauma Center, and affiliate of the Guthrie Healthcare System. The Program is an intensive, hands-on two-year training program leading to an associate in applied science (A.A.S.) degree and employment as a respiratory therapist. Full-time students begin the program in the fall semester on the Mansfield campus where they spend their first two semesters taking general education and prereguisite courses. Students meeting all academic prerequisites (see Progression in the Program on page 7) and health, background check, and insurance requirements (see Background Checks and Health and Insurance Requirements on page 8) may then begin the respiratory therapy courses at Robert Packer Hospital in the subsequent summer session (see the Curriculum box).

An orientation to the Guthrie Robert Packer Hospital clinical campus is provided during the week immediately preceding the start of the summer session. The respiratory therapy courses consist of tightly coordinated classroom, laboratory, and clinical training conducted Monday through Friday, primarily during the day. In all clinical courses, the clinical instructor provides ongoing feedback to the student through weekly written performance evaluations. Each student provides the program with weekly feedback through completion of online clinical instructor and rotation evaluation surveys. Robert Packer Hospital is the primary site of clinical training. Each student's clinical experience assignments will also include rotations to Arnot Ogden Medical Center, Elmira, NY; St. Joseph's Hospital, Elmira, NY; United Health Services Wilson Regional Medical Center, Johnson City, NY; Geisinger Medical Center, Danville, PA; Troy Community Hospital, Troy, PA; and Guthrie Med Supply Depot, Sayre, PA. With regard to clinical experience assignments to off-site facilities, all students are responsible for their own transportation, meal, and housing expenses (if applicable).

Program Objectives

This program is designed to prepare the student to become an advanced-level Registered Respiratory Therapist (RRT). Graduates of this program are qualified to take the National Board for Respiratory Care (NBRC) Certified Respiratory Therapist Exam and, if successful on that exam, the NBRC exams for the Registered Respiratory Therapist (RRT) credential. The specific objectives of the program are that each graduating student will demonstrate:

- the ability to comprehend, apply, and evaluate clinical information relevant to the role of a registered respiratory therapist
- technical proficiency in all skills necessary to fulfill the role of a

registered respiratory therapist

 personal behaviors consistent with professional and employer expectations for the registered respiratory therapist

Program Curriculum

The curriculum in effect for students entering the program in fall, is shown in the box on this page. All courses listed are required courses. The respiratory therapy courses (RTH prefix) are only offered once annually in the semesters shown. Students with questions concerning the curriculum or class scheduling should contact the Program Director (telephone 570-887-4513, or email merrill_sheila@ guthrie.org).

Mansfield University Associate Degree Program

Curriculum	Cradit Haure
Fall Semester (15 weeks at Mansfield University) BSC 1121 Human Anatomy and Physiology I	
Spring Semester (15 weeks at Mansfield University) BSC 1122 Human Anatomy and Physiology II	3 3 3 3
Summer Session (10 weeks at Robert Packer Hospital) RTH 1101 Fundamentals of Respiratory Care I RTH 1102 Fundamentals of Respiratory Care II RTH 1112 Arterial Blood Gases RTH 2221 Clinical Practicum I Summer Session Credit Hour Total	4 1 1
Fall Semester (15 weeks at Robert Packer Hospital) RTH 1111 Pulmonary Function Testing RTH 2205 Respiratory Disease RTH 2204 Pharmacology RTH 2222 Clinical Practicum II RTH 2211 Mechanical Ventilation Semester Credit Hour Total	3 2 3 4
Spring Semester (15 weeks at Robert Packer Hospital) PHL 3380 Health Care Ethics	
Summer Session (10 weeks at Robert Packer Hospital) RTH 2224 Clinical Practicum IV Semester Credit Hour Total	
Program Credit Hour Total	72

Progression in the Program

Students in the Respiratory Therapy Program are subject to all of the academic requirements of the University. In addition, the following are required for progression in the Respiratory Therapy Program:

- 1. A grade of C or above must be earned in all respiratory therapy (RTH) courses.
- 2. A grade of C or above in CHM 1101, BSC 1121, BSC 1122 and MA 1128 (or equivalent courses) is required prior to enrollment in the initial respiratory therapy courses offered at Robert Packer Hospital in Savre PA.
- 3. A cumulative GPA of 2.7 or higher is required to enroll in all RTH courses.
- 4. Students who fail to achieve a C grade or above after taking CHM 1101, BSC 1121, BSC 1122 and/ or MA 1128 (or equivalent courses) for a second time are not eligible to enroll in RTH courses at RPH and are automatically dismissed from the respiratory program.
- 5. Students will be dismissed/denied enrollment in any RTH courses if they receive a letter grade of C minus (C-) or less in any of the two following courses (including repeti-

tion of the same course): anatomy (BSC 1121 and BSC 1122), chemistry (CHM 1101), and college algebra (MA 1128) or equivalent courses and all RTH courses.

6. If more than 14 students meet the standards for progression to the initial respiratory therapy courses offered at RPH, the accredited 14 clinical seats will be given based on grade point averages.

Admission

New students may apply for admission to the program in the fall semester or spring semester. Students not already enrolled at Mansfield University must submit an application for admission to the Mansfield University Admissions Office. Early application is encouraged since class size is limited. The application form is available online at www.mansfield.edu or may be obtained by writing to the Admissions Office, Alumni Hall, Mansfield University, Mansfield, PA 16933, or calling toll free 1-800-577-6826. Once the application, application fee, and high school and/or college transcripts have been received, the Admissions Office reviews the application.

Applicants who have previously completed courses at another accredited college or university may receive transfer credit for courses equivalent in content to courses required in the Respiratory Therapy Program curriculum. A waiver may be granted for a required course if the applicant has demonstrated competency through successful completion of a more advanced course, or if the applicant has successfully completed a course that, although not identical to the required course, substantially satisfies the intent of the program requirement.

Academic high school preparation for the Respiratory Therapy Program should include at least 3 credits of math and one credit each of biology and chemistry, with a minimum 2.7 grade point average in the math and science courses. In addition, prospective respiratory therapy students must be able to:

- 1.Communicate in oral and written English
- 2. Hear normal speech
- 3. Work with both hands simultaneously

Corning Community College Transfer Courses

Corning Community College students may complete many of the Respiratory Therapy Program course requirements at Corning before seeking admission to Mansfield University. Courses at Corning which may be applied to the Respiratory Therapy degree are listed on this page. A grade of at least "C" in all required math and science courses is a prerequisite for the respiratory therapy courses at Robert Packer Hospital. Interested Corning students are encouraged to contact the Program Director at (570) 887-4513 or email: Sheila. Merrill@guthrie.org.org for more information.

Corning Community College

Transfer Courses	
	Credit Hours
BIOL 2020 Anatomy & Physiology I	4
BIOL 2030 Anatomy & Physiology II	4
CHEM 1010 Chemical Principles	4
MATH 1215 College Mathematics I	3
ENGL 1010 College Composition I	3
PSYCH 1101 General Psychology I	3
SOCI 1010 Introduction to Sociology	3
PHIL 2250 Health Care Ethics	3
SPCH 1080 Public Speaking	3

- 4. Walk unassisted for hours at a time
- 5. Assist with moving patients6. Work with blood and body
- fluids
 7. Work with critically ill patients of all ages
- 8. Analyze information and make appropriate decisions
- 9. Work as a team member10. Demonstrate compassion and dependability
- 11. Give of themselves Mansfield University students wishing to change their major to respiratory therapy should contact the Program Director at Robert Packer Hospital (telephone 570-887-4513 or email Sheila.Merrill@guthrie.org). Change of major candidates must have a minimum grade point average of 2.7 and also meet the same requirements specified above for other candidates for admission.

Background Checks

Prior to enrollment in the initial clinical course, RTH 2221 Clinical Practicum I, each student must provide the results of a child abuse and criminal background check to the Program Director. The background checks must be conducted within the six month period immediately before the initial clinical course. More information may

be found in the Program Student Handbook or may be obtained by contacting the Program Director.

Health and Insurance Requirements

To be allowed to treat patients at Robert Packer Hospital, and other affiliated hospitals, each respiratory therapy student must comply with the health requirements established by the hospital and/or state health department. Prior to enrollment in the first respiratory therapy courses at Robert Packer Hospital, each respiratory therapy student must provide the Respiratory Therapy Program Director with the following documentation:

- 1.Two MMR (measles, mumps, rubella) vaccinations, <u>or</u> rubella and rubeola titers confirming immunity (For students born before January 1, 1957, a rubeola titer is not needed)
- 2.Positive history of varicella (chicken pox) <u>or</u> varicella titer confirming immunity
- 3. Hepatitis B immunization
- 4. Tuberculosis skin tests (PPD): If an individual has written documentation of one PPD skin test within the preceding twelve months, one additional PPD skin test is needed prior to beginning the first clinical course in Sayre. If the individual has not had a PPD in the past 12 months, they must complete a two

step PPD process prior to beginning their rotations to the hospital. There must be a minimum of seven days between the two PPD tests, however, the two step PPD process must be completed within a three-week period of time. A PPD skin test is required annually while the student is enrolled in the program.

5.A negative 10-panel urine drug screen performed within the six-month period immediately preceding enrollment in the initial respiratory therapy courses at Robert Packer Hospital.

6.Evidence of personal health insurance. Low cost health insurance is available through the University Office of Student Affairs. You can read about it at www.bollingercolleges.com/mansfield.

7.Proof of professional liability insurance. Students may purchase the required minimum coverage, \$1,000,0000 each incident/\$3,000,000 aggregate, at www.proliability.com for approximately \$35.00/year.

8. All respiratory therapy students must provide documentation of the following three background checks: Pennsylvania criminal and child abuse background checks and an FBI criminal background check is required by May 1st prior to starting the initial respiratory therapy courses at Sayre. All background checks must be renewed annually.

Expenses incurred meeting

Broome Community College Transfer Courses

Many of the Respiratory Therapy Program course requirements may be completed at Broome Community College (BCC). The adjacent box contains a list of BCC courses that can be applied to the Mansfield University/Robert Packer Hospital Respiratory Therapy Program, Both BIO 131 and BIO 132 must be completed successfully for transfer credit. A minimum grade of "C" is required in BIO 131, BIO 132, CHM 120, and MAT 136. For more information, please contact the Program Director at (570) 887-4513 or email: Sheila.Merrill@guthrie.org.

Broome Community College

Transfer Courses	
	Credit Hours
BIO 131 Human Biology I	4
BIO 132 Human Biology II	4
CHM 120 Fundamental Chemistry	4
MAT 136 College Algebra and Trigonometry	4
ENG 110 College Writing I	3
PSY 110 General Psychology	3
SOC 110 Introduction to Sociology	3
SPK 110 Effective Speaking	3

these requirements are the responsibility of the student. Documentation may be mailed to the Program Director, School of Respiratory Therapy, Robert Packer Hospital, One Guthrie Square, Sayre, PA 18840.

Please do not hesitate to contact the Program Director if you have any questions concerning health requirements (telephone 570-887-4513 or email: Sheila. Merrill@guthrie.org).

Tuition, Fees, Housing, and Dining

Current information concerning tuition, miscellaneous fees, housing fees, and dining fees may be obtained from the University Office of Student Accounts (telephone 570-662-4888) or by visiting the University web site (www.mansfield. edu). Housing and dining facilities are available both on the Mansfield and Sayre campuses. Information concerning housing and dining on the Mansfield campus is available from the Office of Residence Life & Housing, 120 Pinecrest Manor, Mansfield, PA 16933 (phone: 570-662-4934). Housing on the Sayre campus is limited, but priority for housing is given to freshmen and sophomore students. For information about housing and dining on the Sayre campus, contact Judith Brayer, Coordinator of Student Services, by telephone at 570-887-4716 or by email at jbrayer@mansfield.edu.

Scholarships and Loans

There are many educational grant and loan programs administered by the state and federal governments. Information concerning these may be obtained from a high school guidance office or the Financial Aid Office at Mansfield University (telephone 570-662-4129).

Some hospitals provide financial assistance to respiratory therapy students in return for a contractual employment obligation after graduation. If more information is desired, please contact the Program Director (570-887-4513 or email:

Sheila.Merrill@guthrie.org).

Student Counseling Services

On the Mansfield campus, the University provides academic, career, and personal counseling services. The Academic Advising Center is located in South Hall 148 (telephone: 570-662-4824). The Career Center is located on the ground floor of Alumni Hall (telephone: 570-662-4133). The Counseling Center is located in South Hall 143 (telephone: 570-662-4436). The Program Director is available for counseling on the Mansfield campus during the fall and spring semesters by appointment.

On the Sayre campus, the Program Director and Director of Clinical Education provide academic, career, and personal counseling throughout the year to all respiratory therapy students. Respiratory Therapy students also may utilize the Robert Packer Hospital Employee Assistance Program for counseling related to personal, family, or financial problems. The service provided by the EAP counselor is free. The EAP counselor may be contacted at (570) 887-5399 or (800) 770-2219. All counseling is strictly confidential.

Graduation Requirements

- 1. Satisfactory completion of all required courses.
- 2. Completion of all professional courses with a grade no lower than "C" in each course.
- 3. Final grade point average of at least 2.00.
- 4. Payment of all tuition, fees, and

debts owed the University.

Employment after Graduation

This program has a record of 100% job placement of its graduates. Graduates of this program are highly sought after by employers. Many graduates are employed at the Robert Packer Hospital or at other health care facilities in the Twin Tiers. Other graduates are employed at hospitals throughout the U.S., such as Children's National Medical Center, Washington, D.C.; Duke University Medical Center, Durham, N.C.; Children's Hospital of Philadelphia, Philadelphia, PA; California Medical Center, Los Angeles, California, Howard County Hospital, Columbia, MD; Methodist Medical Center, Dallas, TX; JFK Memorial Hospital, Lakeworth, FL; Geisinger Medical Center, Danville, PA; Hershey Medical Center, Hershey, PA; Lehigh Valley Hospital, Allentown, PA; Allegheny General Hospital, Pittsburg, PA, and Rochester General Hospital, Rochester, NY. Colleges, home care businesses, and medical equipment companies also employ graduates of this program. Some have earned advanced degrees and now are health care educators, health care administrators, health care consultants, physician assistants, or medical equipment company executives.

All states in the continental United States currently require a



license to practice. New graduates may apply for a temporary license from the state in which they are employed. Upon successful completion of the National Board for Respiratory Care (NBRC) Certified Respiratory Therapist Exam, a permanent license to practice respiratory care is granted.

The Pennsylvania State Board of Medicine will not issue a license to an applicant unless the applicant establishes with evidence, verified by an affidavit or affirmation of the applicant, that the applicant is of legal age, is of good moral character and is not addicted to the intemperate use of alcohol or the habitual use of narcotics or other habit-forming drugs and that the applicant has completed the educational requirements prescribed by the board. Further, the board will not issue a license to any applicant who has been:

1.convicted of a felonious act prohibited by the act of April 14, 1972 (P.L. 233, No. 64) known as The Controlled Substance, Drug, Device and Cosmetic Act, or

2.convicted of a felony relating to a controlled substance in a court of law of the United States or any other state, territory or country unless:

- at least 10 years have elapsed from the date of the conviction;
- 2) the applicant satisfactorily demonstrates to the board significant progress in personal rehabilitation since the conviction such that licensure should not create a substantial risk of further violations; and
- 3) the applicant otherwise satisfies the qualifications contained in this act.

Career Opportunities

Career opportunities for respiratory therapists are plentiful throughout the United States. According to the Bureau of Labor Statistics (www.bls.gov), the demand for respiratory therapists is expected to grow faster than the average for all other professions, by 19% during the period 2012 to 2022, faster than the average for all other professions. Respiratory therapists will find positions available in hospitals, skilled nursing facilities, nursing homes, physician's offices,

outpatient clinics, rehabilitation centers, home care, medical equipment companies, the pharmaceutical industry, research labs, colleges, and universities.

National Board Exams

Application for the credentialing exams administered by the National Board for Respiratory Care (NBRC) may be made online at www.nbrc. org. Graduates of this program are immediately eligible for the National Board for Respiratory Care exams leading to the Certified Respiratory Therapist and Registered Respiratory Therapist credentials.

Program Outcomes

Class 2012-2016

- CRT exam pass rate: 29/29 = 100%
- CRT credential: 29/29 = 100%
- RRT credential: 27/29 = 93.1%
- Employment Rate: 29/29 = 100%

Professional Organization

The American Association for Respiratory Care (AARC) is the national professional organization for respiratory therapists and respiratory therapy students. The AARC is sponsored by the American College of Chest Physicians, The American Society of Anesthesiologists, and the American Thoracic Society.

The AARC was created in 1947 to advance the science, technology, and art of respiratory care through education, basic research, and legislation. The AARC promotes standards of excellence in ethics, education, administration, and technical and clinical performance for respiratory care practitioners.

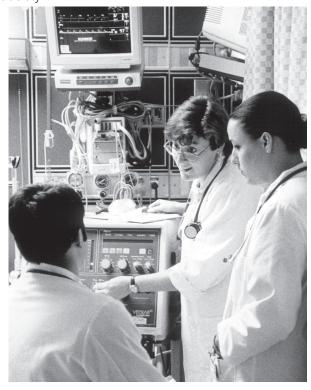
Among services provided to its members are professional journals and publications, insurance, employment opportunities, government representation, and continuing education programs. Information concerning member-

ship is provided to each student early in the program and is available at the AARC website (www.aarc.org).

All students are strongly encouraged to support their profession through membership and voluntary service in the AARC.

Program Accreditation

Mansfield University is accredited by the Middle States Association of Colleges and Secondary Schools. The Respiratory Therapy Program is fully accredited by the Commission on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, TX 76021-4244 (telephone: 817-283-2835). This respiratory therapy program annually submits a comprehensive annual report to CoARC that includes graduate pass rates on National Board exams, attrition rates, and results of surveys of graduate and employer satisfaction and program resources. For continued accreditation, all programs must meet or exceed all CoARC-defined "thresholds of success" for the data submitted. As of this printing, this program has met all CoARC "thresholds of success" in its latest annual report. More information is available at the CoARC web site: www.coarc.com.



Course Descriptions for School of Respiratory Therapy

RTH 1101 Fundamentals of Respiratory Care I (3)

An introduction to respiratory anatomy and physiology and the administration of medical gases and aerosols to patients. (4.5 lecture hours/week) (PREREQUISITES: BSC 1121, BSC 1122, CHM 1101, and MA 1128 with a grade of C or better in each, and a GPA of at least 2.5)

RTH 1102 Fundamentals of Respiratory Care II (4)

Classroom and laboratory instruction in basic techniques of patient assessment, infection control, incentive spirometry, positive pressure breathing therapy, respiratory pharmacology, chest physical therapy, airway management, manual ventilation, and cardiopulmonary resuscitation. (4.5 lecture hours and 3 laboratory hours/week) (PREREQUISITES: BSC 1121, BSC 1122, CHM 1101, and MA 1128 with a grade of C or better in each, and a GPA of at least 2.5)

RTH 1111 Pulmonary Function Testing (2)

A discussion of the techniques used in the hospital pulmonary function laboratory to qualify and quantify abnormal lung function. The student will be instructed in the interpretation of all diagnostic tests. (2 hours lecture/week) (PREREQUISITES: BSC 1121 or equivalent)

RTH 1112 Arterial Blood Gases (1)

Instruction in the sampling and analysis of arterial blood and in the interpretation of physiologic data derived from these samples. (2 hours lecture/week during summer session) (PREREQUISITES: BSC 1121, BSC 1122, CHM 1101, and MA 1128 with a grade of C or better in each, and a GPA of at least 2.5)

RTH 2221 Clinical Practicum I (1)

Clinical instruction and practice in patient assessment and administration of basic respiratory care to patients in the noncritical care areas of the hospital. The student will also have introductory rotations to the arterial blood gas lab. (8 clinical and 2 classroom hours/week) (PREREQUISITES: BSC 1121, BSC 1122, and MA 1128 with a grade of C or better in each, and a GPA of at least 2.5)

RTH 2222 Clinical Practicum II (3)

Development of competency in patient assessment and administration of basic respiratory care to patients in the noncritical care areas of the hospital. The student will practice diagnostic procedures in the arterial blood gas, pulmonary function, and EKG labs. The student is introduced to endotracheal intubation in the Operating Room, bronchoscopy, and to procedures performed in the critical care units of the hospital. (16 clinical and 2 classroom hours/week) (PREREQUISITES: RTH 2221 with a grade of at least C)

RTH 2204 Pharmacology (2)

This course covers the action and uses of pharmacologic agents. The emphasis is placed on drugs used in diagnosis and treatement of cardio-pulmonary illness. The course includes the calculation of dosages and solutions.

RTH 2205 Respiratory Disease (3)

A discussion of common pulmonary disorders and their management. Topics include asthma, emphysema, interstitial fibrosis, neuromuscular diseases, pn eumonia, pneumoconiosis, pulmonary edema, pleural disease, chest trauma, ARDS, and respiratory failure. (2 hours lecture/week) (PREREQUISITE: BSC 1122)

RTH 2208 Perinatal/Pediatric Respiratory Care (2)

A comprehensive review of the management of common disorders affecting cardiopulmonary function in the newborn and pediatric patient. This course is intended to prepare the student for hands-on clinical rotations to the neonatal and pediatric intensive care units and introduce the student to this area of specialization. (2 hours lecture/week) (PREREQUISITE: RTH 1102)

RTH 2223 Clinical Practicum III (5)

Application of respiratory care to the patient in the critical care and long term ventilator care unit. The student will demonstrate competence in the arterial blood gas and pulmonary function labs and continue practicing endotracheal intubation and assisting the physician with bronchoscopy.

(24 clinical and 2 classroom hours/ week) (PREREQUISITES: RTH 2222 with a grade of at least C)

RTH 2224 Clinical Practicum IV (6)

The student practices and demonstrates competence in a number of areas including care of the critically ill patient, endotracheal intubation, and assisting the physician with bronchoscopy. Specialty rotations are included to the neonatal intensive care unit, pediatric ICU, home care site, and pulmonary rehabilitation center. (32 clinical and 4 classroom hours/week) (PREREQUISITES: RTH 2223 with a grade of at least C)

RTH 2211 Mechanical Ventilation (4)

Classroom and laboratory instruction in mechanical ventilation of adult, pediatric, and neonatal patients. (3 hours lecture and 3 hours laboratory per week) (PREREQUISITE: RTH 1102)

RTH 2212 Advanced Cardiopulmonary Care (3)

A discussion of the care of patients with cardiovascular problems. The student is taught the current American Heart Association standards for advanced cardiac life support. (3 hours lecture/week) (PREREQUISITE: RTH 2211)

General Education

BSC 1121

Human Anatomy and Physiology (4)

This course presents an integrated approach to the study of the anatomy and physiology of the various organ systems of the human body.

BSC 1122

Human Anatomy and Physiology (4)

BSC 1122 is a continuation of BSC 1121. This course completes an integrated approach to the study of the anatomy and physiology of the various organ systems of the human body.

CHM 1101 Introductory Chemistry (4)

This course is a treatment of fundamental principles of inorganic chemistry for non-science majors.

COM 1101 Oral Communication (3)

The objectives of this course are to help the student to formulate his/her own ideas coherently, evaluate factual material, and use sound reasoning patterns in his/her preparation and attempts to communicate concepts orally; to determine and select the most effective means of expression in formal and informal speaking situations.

COM 1102 Effective Public Speaking (3)

COM 1102 introduces students to the principles of effective communication, with a specific focus on public speaking. Course topic includes audience analysis, organizational structure, the use of supplementary visual and auditory aids, components of different types of speeches, and delivery elements. Students will develop public speaking skills through in-class activities, collaborative learning, peer critiques, and analysis of public speeches and other messages.

COM 1103 Speaking Effectively in Groups (3)

COM 1103 introduces students to principles of effective communication with a specific focus on speaking formally and informally in groups. Course topics include the basics of communication, developing effective speaking skills in a group context, group dynamics, teamwork, and problem-solving. Students will participate in various types of group presentations and engage in analytical message critique. This course enables students to work more effectively in groups, develop teams, lead, and make effective group and individual presentations.

ENG 1112 Composition I (3)

Intensive reading and writing of expository prose. Analytical and critical thinking and college-level research skills are emphasized. (PREREQUISITE: Exemption from ENG 0090 or equivalent transfer course.)

MA 1128 College Algebra (3)

Review of ideas in basic algebra, graphs, equations, inequalities, and a strong emphasis on functions (general, polynomial, rational, exponential and logarithmic).

PHL 3380 Health Care Ethics (3)

Health care does not exist in a vacuum and neither do the concepts learned in this course, which offers a thorough examination of the arguments designed to provide solutions to moral problems commonly faced by patients and health care providers. Topics include: confidentiality; reproductive rights; death, dying and euthanasia; the distribution of scarce resources (including health insurance plans). No background in philosophy or in medicine is necessary. Prerequisites: Must have 30 earned credits.

PSY 1101 Introduction to General Psychology (3)

This course is designed to familiarize students with the application of scientific psychology to human life. Emphasis is on "normal" behavior and its antecedents. It includes the study of broad categories of human behavior through various psychological models.

SOC 1101 Introduction to Sociology (3)

Introduction to the basic concepts, premises, and techniques involved in the scientific approach to the study of human societies. Analysis is made of selected aspects of social behavior at interpersonal, intergroup, and societal levels of contemporary American society.



Mansfield University Radiologic Technology

Associate Degree Program
With Corning Community College Transfer Option

and Bloomsburg University Baccalaureate Degree Option

STAFF

Mary Sullivan, MHA, R.T. (R)..... Amy Sredenschek, BS, R.T. (R) Matthew Marsiglio, R.T. (R)..... Hailey Comstock, R.T. (R) (RDMS) Preceptor Ultrasound Heather Wheeler, R.T. (R) (CT) Preceptor CT Shannon Raatz, R.T. (CT) (MR)..... Preceptor MRI Ruth Widrig, R.T. (R) (T)..... Lori Havens, R.T. (R) (M) Harold Hulings R.T. (CV)..... Danielle Martinez, R.T. (CNMT) (R) (CT) (N) Preceptor Nuclear Medicine

Program Director Director of Clinical Education Clinical Instructor Preceptor Radiation Therapy Preceptor Mammography Preceptor Vascular Interventional Radiography



The term diagnostic radiography is used to describe a variety of radiographic or x-ray examinations. Most people are familiar with chest x-rays and also know that x-rays are the best way to diagnose broken bones. The radiographer performs these procedures as well as procedures which require the use of contrast agents that make it possible to study organs and blood vessels that otherwise cannot be seen. Radiographers are valued members of the health care team.

Career Opportunities

Upon program completion, career opportunities are available in hospitals, imaging centers, medical clinics and mobile units. Although there is no formal job placement service, job opportunities exist throughout the U.S. With additional education or training, radiographers can pursue employment in specialty areas including Mammography, Ultrasound, MRI, CT, Radiation Therapy, Nuclear Medicine and Vascular Interventional Radiography. Graduates who pursue a Baccalaureate Degree may be considered for positions in education or administration.

Accreditation

The Mansfield University Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182. For additional information visit the website at www.jrcert.org or email officials: mail@jrcert.org,

Phone: (312) 704-5300, Fax: (312) 704-5304

Program Description

The Radiologic Technology Program is jointly sponsored by Mansfield University, a member of the Pennsylvania State Higher Education System, and Robert Packer Hospital, a tertiary care teaching hospital, Level II Regional Trauma Center, and affiliate of the Guthrie Healthcare System. The Program is an intensive, hands-on two-year training program leading to an associate in applied science (A.A.S.) degree and employment as a radiologic technologist. Students are on the Mansfield, PA, campus the first semester. The remaining three semesters and two summer sessions require clinical and classroom experience at the Robert Packer Hospital, in Sayre, PA.

Radiology students attend an orientation session at Robert Packer Hospital during the start of the regular 1st spring semester.

When assigned to the Sayre campus, students complete up to 40 clinical/classroom hours per week. The average daily times of attendance are from 8:00 a.m. to 4:00 p.m., Monday through Friday.

Occasionally, attendance at a late afternoon class that extends beyond 4:00 p.m. is required. While the majority of courses are taught using traditional in-class instruction, some are completed via online learning.

Clinical education includes extensive clinical experience at the Radiology Department of Robert Packer Hospital in Sayre, Pennsylvania. Students are routinely as-



signed to diagnostic areas and gain familiarity with specialty areas by completing a short clinical rotation within each modality. During the second year, each student rotates through an evening clinical assignments that occur from 4:00 p.m. to 8:00 p.m., Monday through Friday.

Students are subject to the rules and Regulations of both the university and medical center affiliate.

Mission Statement

The mission of the Radiologic Technology program is to integrate Mansfield University's liberal arts emphasis to develop competent entry level diagnostic radiographers. As graduates, these radiographers will possess the expertise necessary to meet the needs of the communities they serve, while providing compassionate, patientcentered care.

Program Goals and Student Learning Outcomes

Goal #1: To provide the health care community with competent, entry-level diagnostic radiographers.

- 1. Students will position patients accurately.
- 2. Students will align CR accurately.
- 3. Students will select optimal exposure factors.
- 4. Students will apply radiation protection principles.
- Students will successfully perform diagnostic procedures while under the supervision of staff technologists.
 Goal #2: Students will demonstrate appropriate patient communication and education skills.
- Students will identify themselves and the patient, verify the body part to be imaged, and obtain an accurate history.
- Students will explain the procedure and process for obtaining the diagnostic report.

Goal #3: Students will demonstrate problem-solving and critical thinking

when performing medical imaging procedures.

- Students will demonstrate critical thinking while performing radiographic procedures.
- Študents will evaluate radiographic images for appropriate positioning and image quality.

Goal #4: Students will demonstrate professionalism.

1. Students will demonstrate professional and ethical conduct.

Goal #5: The program will continuously monitor its effectiveness.

- 1. Students will complete the program.
- 2. Graduates will pass the ARRT Certification Exam on the first attempt.
- 3. Graduates pursuing employment will be employed within twelve months after program completion.

Goal #6: The program will promote graduate and employer satisfaction.

- Graduates will express satisfaction with the training received during the program.
- 2. Employers will express satisfaction

with the performance of the graduate.

Admission

The radiologic technology program accepts a maximum of ten students annually. Admission is granted only for the fall semester and the Admissions Committee will select candidates based on:

- 1. A high school diploma or GED
- Submission of high school and/or college-level transcripts
- 3. A completed application form with the non-refundable fee.
- Preference will be given to candidates with a B or better in preferred science and math courses which include: Algebra I, Algebra II, Geometry, Trigonometry, Calculus, Anatomy and Physiology, Chemistry, Physics, Biology and ACE or AP science and math courses.
- 5. SAT scores (Preferred high school criteria is a minimum of a 1000

Program Effectiveness Data

The performance of radiography programs is summarized by program effectiveness data which includes the program completion rate, credentialing examination pass rate and job placement rate. The data is required by the Joint Review Committee on Education in Radiologic Technology (JRCERT) (20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182, 312-704-5300, www.jrcert.org). The Mansfield University Radiology Technology Program's effectiveness data is found below. This information can also be obtained at www.ircert.org/resources/program-effectiveness-data.

	Credentialing Examination Pass Rate This is the number of graduates passing the American Registry of Radiologic Technologists (ARRT) certification examination on the first attempt within 6 months of graduation divided by the number of graduates who attempted the exam within 6 months.				
2019 2018 2017 2016					2015
	100% 8/8 graduates passed on the	100% 9/9 graduates passed on the	100% 10/10 graduates passed on the	88% 7/8 graduates passed on the	88% 7/8 graduates passed on the

first attempt first attempt first attempt first attempt first attempt

5-Year Credentialing Examination Pass Rate: 95%

(For the five-year range listed aove, 41 of 43 graduates passed the ARRT Certification Exam on the first attempt within six months of graduation)

Job Placement Rate This is the number of graduates employed within twelve months of graduation compared to the number of graduates actively seeking employment in the radiologic sciences

ı	2019	2018	2017	2016	2015
I	100%	100%	83%	100%	100%
ı	6/6 graduates who	6/6 graduates who	5/6 graduates who	8/8 graduates who	8/8 graduates who
ı	sought employ-				
١	ment gained				
ı	employment	employment	employment	employment	employment

5-year Average Job Placement Rate Within Twelve Months of Graduation: 97% (For the five-year range listed above, 32 of 33 graduates who sought employment in radiologic sciences obtained employment within twelve months of graduation)

Program Completion Rate

This is the number of students for each listed cohort who complete the program within 150% (36 months) of the stated program length of 24 months divided by the number of students who initially started with the cohort.

2019	2018	2017	2016	2015
73%	90%	100%	80%	73%
8 students	9 students	10 students	8 students	8 students
graduated/11	graduated/10	graduated/10	graduated/10	graduated/11
students began the				
program	program	program	program	program

- combined score for math and critical reading)
- 6. Minimum 2.5 cumulative GPA required to be considered for transfer into the Radiology Program. Transfer candidates must possess a strong science and math background for consideration.
- 7. A completed personal interview and shadowing experience.

Applicants must also comply with program technical standards:

- 1. Read small print and write legible notes
- 2. Speak clearly and be understood
- 3. Handle sterile and non-sterile instruments with dexterity
- 4. Hear speech when the speaker wears a mask and the listener's ears are covered with a cap
- 5. Lift, move and assist patients
- 6. Perform x-ray equipment manipulation
- 7. Wear a protective apron when necessary
- 8. Access, without assistance, all clinical areas
- 9. Perform all CPR movements

Admission Process

Applicants must submit a completed application with the non-refundable fee to the Mansfield University Enrollment Services Department along with high school/college transcripts and SAT and/or ACT scores. The Enrollment Services Department selects candidates who meet the minimum University admission requirements and forwards their applications and transcripts to the Program Director of the Radiologic Technology Program and the Admissions Committee for review.

Since class size is limited, only applicants with acceptable SAT scores and a solid high school and/or college math and science background and are granted a personal interview. Preferred math and science courses are Algebra I, Algebra II, Geometry, Trigonometry, Calculus, Anatomy and Physiology, Chemistry, Physics, Biology and ACE or AP science and math courses.

During the interview, applicants will receive information about the program and will participate in a shadowing experience within the Robert Packer Hospital Radiology Department. Interviewees will receive information regarding their acceptance status from the Mans-

field University Admissions Office within approximately two weeks following the interview.

Applicants who receive a rejection letter may reapply to the program after completing math and science college level courses. Courses completed must include BSC 1121 Anatomy and Physiology I and MA 1128 College Algebra at Mansfield University. A minimum arade of grade of "C-" must be attained in each course to be reconsidered for acceptance. Applicants who request re-consideration will be admitted on a space-available basis and their scores will be considered with other applicant scores at the time of re-consideration.

Alternate Status

In addition to the ten majors, the program accepts a minimum of

three alternate students annually. Alternate status enables the applicant to begin his/her studies at Mansfield University in the fall semester under the Academic Exploration Program and take all the required courses within the radiology program's fall curriculum.

If an opening occurs during the fall semester, alternate students will be considered for full acceptance into the program. Alternate students who are accepted must attain at least a grade of "C" in each course, and those with the highest numerical average of grades in BSC 1121 Human Anatomy & Physiology I, XRT 1101 X-ray Technology I, and MA 1128 College Algebra will be accepted first.

If alternate students are not accepted into the program during the fall semester, they may continue taking general education courses required

Mansfield University Associate Degree Program

Curriculum	Consolit Harris
Fall – Mansfield University Campus BSC 1121 Human Anatomy & Physiology I MA 1128 College Algebra XRT 1010 X-ray Technology I FYS 1100 First Year Seminar COM 1101, 1102, 1103 Commulication Electives	
Spring – Robert Packer Hospital BSC 1122 Human Anatomy & Physiology II	3 5 Care 1
Summer – Robert Packer Hospital XRT 2222 Clinical Course IIXRT 1030 X-ray Technology III	
Fall – Robert Packer Hospital SOC 1101 Introduction to Sociology	3 3 3
Spring – Robert Packer Hospital PHL 3380 Allied Health Care Ethics	3 3
Summer – Robert Packer Hospital XRT 2225 Clinical Course V XRT 1106 X-ray Technology VI	
Т	OTAL 71

within the Radiologic Technology Program at Mansfield University. They are guaranteed acceptance into the Radiology Technology Program for the following spring semester provided they have attained a minimum grade of "C" in XRT 1010 X-Ray Technology I, and a minimum grade of C- in BSC 1121 Human Anatomy and Physiology I and MA 1128 College Algebra. They must also attain a passing grade in all attempted general education courses within the radiology program's curriculum.

Obtaining Program Information and an Application

Information and an application form can be obtained by calling the Mansfield University Enrollment Services Office at (570) 662-4243 or by contacting Mary Sullivan, Program Director, at (570) 887-4007. The same information and an online application may also be obtained by visiting www.mansfield. edu.

Application Deadline

To receive proper consideration, applications should be received by the University no later than January 15. Applications submitted after January 15 will be accepted on a space-available basis.

Transfer Credit

Appropriate credit may be given for comparable college-level course work. For questions regarding transfer credit contact Mansfield University Admissions at 570-662-4815 or online at admissions@mansfield.edu

Change of Major

Any Mansfield University student who would like to be considered for acceptance into the Radiologic Technology Program must notify the Program Director by phone: (570) 887-4007 or by e-mail: MaryK.Sullivan@guthrie.org or msulliva@mansfield.edu. Students must contact the registrar's Office at Mansfield University and request that the following documents be sent to the program Director:

- 1. Student's original application to Mansfield University
- All post-secondary transcripts including the Mansfield University transcript

The Admissions Committee will consider the request using the same acceptance criteria as for external applicants. All candidates are notified of their final application status by the Program Director. Upon notification of acceptance, candidates must submit a completed Change of Major form to the Program Director.

Health, Insurance and Background Check Requirements

To be allowed to treat patients at Robert Packer Hospital and other affiliated hospitals, each radiology student must comply with the health, insurance, and background check requirements established by the hospital and/or state health department. Each radiology student must provide the Program Director with documentation of the following:

- A. Health and Insurance Requirements:
- Two MMR (measles, mumps, rubella) vaccinations, or rubella and rubeola titers confirming immunity. (For students born before January 1, 1957, a rubeola titer is not needed.)
- Two chicken pox (varicella) immunizations or varicella titer confirming immunity.
- 3. Hepititis B immunizations (series of three).
- 4. A T-Spot blood test to determine if student has antibodies (has been exposed) to Tuberculosis.
- 5. Tdap (tetanus, diphtheria and pertussis) shot within last ten years.
- 6. Flu shot for current flu season.
- 7. A negative 10-panel urine drug screen completed within six months of beginning courses on the Guthrie/Robert Packer Hospital campus.
- 8. A signed waiver indicating that the radiology student will not participate in the care of patients with tuberculosis.
- Evidence of personal health insurance. Low cost health insurance is available through the Mansfield University Office of Resident Life. You can apply for a policy at ww.bollingercolleges. com/mansfield.
- 10. Proof of professional liability

Corning Community College Transfer Option

Corning Community College (CCC) students have the opportunity to complete many of the Radiologic Technology Program course requirements at CCC. Appropriate CCC transfer courses are identified below. After transfer to Mansfield University, most professional courses, required for the Radiologic Technology Associate Degree, will be taken on the Guthrie Healthcare Campus in Sayre, PA. Interested CCC students are encouraged to contact the Mansfield University Radiologic Technology Program Director for advisement prior to taking transfer courses, since acceptance into the MU Radiologic Technology Program is not quaranteed and candidates must meet program acceptance requirements.

Corning Community College Transfer Courses CCC Course Title MU Course Title Credit Hrs. ENGL-1010 Composition I ENG-1112 Composition I 3 SOCI-1010 Introduction to Sociology I SOC-1101 Introduction to Sociology I 3 3 PSYC-1101 General Psychology I PSY-1101 Introduction to Psychology 3 MA-1215 College Mathematics I MA-1128 College Algebra (substitutes) SPCH-1080 Public Speaking COM-1101, 1102, or 1103 Communication Electives 3 BIOL-1210 Principles of Anatomy & Physiology I BSC-1121 Human Anatomy and Physiology I 4 BIOL-1220 Principles of Anatomy & Physiology II BSC-1122 Human Anatomy and Physiology II 4 BIOL-2020 Anatomy and Physiology I 4 BSC-1121 Human Anatomy and Physiology I BIOL-2030 Anatomy and Physiology II 4 BSC-1122 Human Anatomy and Physiology II

insurance. Students may purchase the required minimum coverage, \$1,000,0000 each incident/\$3,000,000 aggregate, at www.proliability.com.

- B. Criminal and Child Abuse
 Background Checks
 *This process can take 4-8 weeks
- 1. Pennsylvania State Police Criminal History Record
- 2. Department of Human Services Child Abuse Report
- 3. Federal Criminal History Record Information (CHRI) FBI Report

Link for all 3 background checks can be found here:

http://keepkidssafe.pa.gov/resources/clearances/index.htm

Please carefully read and follow directions on website for completing background checks.

Expenses incurred meeting the above requirements are the responsibility of the student. All documentation must be submitted to the Program Director by September 30th during the first fall semester. Students who fail to complete the Health requirements and/or submit documentation will be denied access to clinical and laboratory classes during the first spring semester. Students must keep a copy of all submitted documentation for their records.

Tuition, Fees, Housing, and Dining

Current information concerning tuition, miscellaneous fees, housing fees, and dining fees may be obtained from the University Office of Student Accounts (telephone 570-662-4888) or by visiting the University web site (www.mansfield. edu). Housing and dining facilities are available both on the Mansfield and Sayre campuses. Information concerning housing and dining on the Mansfield campus is available from the Office of Residence Life & Housing, 120 Pinecrest Manor, Mansfield, PA 16933 (phone: 570-662-4934). Housing on the Sayre campus is limited, but priority for housing is given to freshmen and sophomore students. For information about housing and dining at the Sayre campus, contact Judi Brayer, Coordinator of Student

Services, by telephone at (570) 887-4716 or by e-mail: jbrayer@mansfield.edu.

Transportation to Troy Community Hospital

During either the 2nd spring or 2nd summer semester students are assigned to a one-week clinical rotation at Troy Community Hospital in Troy, PA. to gain additional clinical experience. Students must provide their own transportation to and from the hospital.

Program Standards

Radiology students are subject to all Mansfield University policies plus the following Radiologic Technology Program standards:

- 1. A minimum grade of "C-" in BSC 1121 Human Anatomy & Physiology and MA 1128 College Algebra is required for enrollment in the radiology courses in Sayre.
- 2. A minimum grade of "C" must be achieved in all professional courses (those with an XRT prefix) and modules. Any module grade below "C" will result in failure of the entire course. Any student receiving a "C-" or lower grade cannot continue in the program until the course is repeated and a "C" or higher grade is attained.
- 3. Professional courses can be repeated only once. Students will be readmitted on a "space available" basis. Any student who fails to earn at least a grade of "C" upon completion of the repeated course will be dismissed from the program.

4. All degree work must be completed within three years.

Scholarships and Loans

There are numerous educational loan programs sponsored by state and federal governments. Information on these can be found in a high school guidance office or the Financial Aid Office of Mansfield University in the Doane Center. Telephone (570) 662-4129 for assistance.

For state sponsored scholarships and low interest loan programs, write to your local state department of education.

The American Society of Radiologic Technologists (ASRT) also offers the following scholarships for entry-level students who have been accepted into programs associated with radiology:

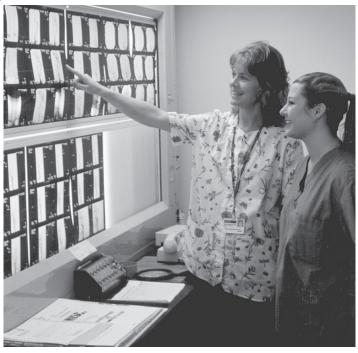
Jerman-Cahoon Student Scholarship

Five scholarships of \$2,500 each are awarded annually to students in radiography, sonography, magnetic resonance or nuclear medicine.

Royce Osborn Minority Student Scholarship

Five scholarships of \$4,000 are awarded each year to minority students in radiography, sonography, magnetic resonance or nuclear medicine

For more information, visit www.asrt. org.



Pregnancy Policy

A number of studies have suggested that the embryo/fetus may be more sensitive to ionizing radiation than an adult, especially during the first three months of pregnancy. To reduce exposure to the unborn during potentially sensitive periods of gestation, the Mansfield University Radiologic Program has adopted the recommendations of the National Council on Radiation Protection (NCRP) in Report no. 116. The NCRP recommends a monthly dose limit not exceeding 0.05 rem (0.5 mSv) and a limit during the entire pregnancy not to exceed 0.50 rem (5.0 mSv). These dose limits exclude both medical and natural background radiation.

It is recommended that a student avoid becoming pregnant while in the radiography program to ensure radiation safety to any unborn embryo or fetus. If a pregnancy does occur, the student may choose to keep her pregnancy status confidential or undisclosed. Disclosure or declaration of pregnancy is strictly voluntary.

However, to ensure that additional protective measures for the fetus and mother are initiated quickly, the student is strongly encouraged to inform the Program Director upon medical verification of pregnancy. The student must submit a written notification from her physician verifying the pregnancy and a predicted due date. The student will then meet with the radiation Safety Officer (RSO) and will be asked to sign a Declaration of Pregnancy form. The RSO will then provide the student with a fetal radiation monitoring device which must be worn in the proper location during all clinical assignments. The RSO will check the fetal doses to insure that the recommended limit is not exceeded. The pregnant student should involve the expertise of the RSO in regard to guestions about the risks of fetal irradiation and in all radiography course decisions where the use ionizing radiation equipment is

A student may withdraw her declaration of pregnancy at any time by submitting a written notice to the Program Director.

The student who is pregnant will have several options to consider regarding the continuation of her educational program at Mansfield University:

She may remain in all program courses through program completion without any modification or interrup-

tion because of her pregnancy. She will wear both her primary dosimeter and the fetal dosimeter in the proper locations during all clinical assignments. She will wear a 0.50 mm wrap-around lead apron when assigned to portables and fluoroscopic exams.

She may remain in all program courses and request special modifications related to the higher dose clinical areas (e.g. portable imaging, surgery, fluoroscopy, etc.). However, all clinical objectives and competencies must be met prior to graduation.

She may take a leave from all program coursework with the duration of leave not to exceed a period of time that will prevent program completion within the 36 months.

Graduation Requirements

- 1. Satisfactory completion of all required courses.
- 2. Completion of BSC 1121 and MA 1128 with a grade no lower than "C-"
- 3. Completion of all professional courses with a grade no lower than "C" in each course.
- 4. Final Q.P.A. of at least 2.00.
- 5. Payment of all required tuition, fees, and debts.

ARRT Certification Examination

Graduates of the program are eligible to sit for the certification examination of the American Registry of Radiologic Technologists (ARRT). Candidates must meet all ARRT requirements and ethical standards. Conviction of a crime (felony, gross misdemeanor, or misdemeanor) and drug/alcohol related violations can affect a graduate's eligibility to sit for the examination.

Certified radiographers may use the letters "R.T. (R)" after their names and ARRT certification satisfies most state radiographer licensure laws. More information can be obtained at the website, "www.arrt.org.

The program boasts an outstanding pass rate on the certification examination.

Professional Organization

The American Society of Radiologic Technologists (ASRT) is a national society to which certified radiographers and students are eligible to belong.

The ASRT publishes a journal that provides educational articles and opportunities for employment, conducts regional and national conferences, produces educational materials/self-

study programs, supports legislation for improvements in radiologic science, produces curriculum guides for programs in the various imaging modalities, reviews and approves continuing education programs, and maintains education records for its members. Visit the website, www.asrt.org for more information.

Student Counseling Services

On the Mansfield campus, the University provides academic, career, and personal counseling services. The Academic Advising Center is located in South Hall 148 (telephone: 570-662-4824). The Career Center is located on the ground floor of Alumni Hall (telephone: 570-662-4133). The Counseling Center is located in South Hall 143 (telephone: 570-662-4695 / 570-662-4436). Tutoring services are provided by the Learning Center (South Hall 144, telephone 570-662-4150 / 570-662-4436).

At the Sayre Campus, program faculty members are available for academic, career, and tutoring services throughout the year. Students can also take advantage of the Guthrie Clinic Employee Assistance Program. At no cost to the student, the program will provide professional counseling for the following problems: family or marital problems; stress problems; interpersonal difficulties; depression and related problems such as insomnia, weight gain or loss, etc.; and any other psychosocial stressors that interfere with the student's sense of wellbeing. The service, provided by the EAP counselor, is free of charge and confidential. The EAP office may be contacted at (570) 887-5397.

BLOOMSBURG UNIVERSITY BACCALAUREATE DEGREE OPTION

Articulation Agreement

Under the terms of an articulation agreement between Mansfield University and Bloomsburg University, graduates from the Mansfield University Radiologic Technology Program are guaranteed admission with advanced standing at the junior level to Bloomsburg University. Following successful completion of the BU Medical Imaging Program, graduates will earn a Bachelor of Science Degree.

Mansfield University (MU) and Bloomsburg University (BU) officially confirm the following terms of this agreement:

- 1.After admission to MU, an interested student signs a letter of intent to transfer to BU at the time the Associate in Applied Science Degree is completed.
- 2. The Office of Admissions at BU reserves a place for the student as a junior year transfer student upon receipt of the student's letter of intent.
- 3.One year prior to matriculation at BU, the student confirms the intent to enroll by completing the transfer admissions application.
- 4.BU accepts all 71 credits from MU.
- 5.A minimum of 48 additional semester hours of credit must be completed to be awarded the BU Bachelor of Science Degree. BU residency requirements must be observed (30 credits from BU).

For more information, contact: Judith A. Kipe-Holt, Ph.D. Professor, Biology & Allied Health Sciences Bloomsburg University 400 East 2nd Street Bloomsburg, PA 17815 269 Heartline Science Center Phone: 570-389-4319

Fax: 570-389-3018

Bloomsburg University Requirements for the Medical Imaging Program Bachelor of Science Degree

Bachelor of Science Degree			
	Credit Hours		
MU A.S. Degree in Radiologic Technology	71		
Biology 114 Concepts in Biology I	4		
Biology 208 Medical Terminology	3		
Physics 107 Physics for Health Sciences or Physics 111 Introduction to Physics 1	4		
Compsci 110 Introduction to Computer Science or ITM 175 Information Technology Management Applications or Chemistry 101 Introduction to Chemistry	3		
Math 116 Math for Health Science	3		
At least 15 credits must be taken from one of the emphasis areas: Science Emphasis or Management Emphasis OR If a student completes a second clinical modality (e.g. Nuclear Medicine, Sonography, Cardiovascular, MRI, etc), 17 additional clinical credits can transferred to BU and count towards the BS degree in place of the Emphasis credits. Note: BU does not offer these clinical programs.	15 be		
General Education (it is estimated that approximately 18 credits will be required) Courses to earn the required General Education Points toward: Goal 2: Information Literacy Goal 4: Cultures and Diversity Goal 7: Arts & Humanities Goal 9: Healthy Living Goal 10: Citizenship			
Free electives (if needed) to complete the 120-credit minimum graduation requirement TOTA	AL 120		

Course Descriptions for School of Radiologic Technology

Professional Courses

XRT 1010 X-Ray Technology I (3)

Course content provides an introduction to the basic elements of radiologic technology. Students will discuss and evaluate medicolegal issues, professionalism, radiation protection practices, radiologic terms, and basics of digital imaging. This course is a professional course within the Radiologic Technology curriculum and radiology students are given preference. With instructor permission, course enrollment is open to any university student.

XRT 1020 X-Ray Technology II (5)

The goal of this course is to present a basic introduction to imaging equipment operation and concepts of patient care. Students will also learn radiographic examination considerations for the extremities, spine, shoulder girdle, pelvic girdle, and bony thorax. (Prerequisites: XRT 1010, BSC 1121, and MA 1128)

XRT 1030 X-Ray Technology III (3)

Course content acquaints the student with principles of radiation biology. Emphasis will be placed on radiographic examinations of the biliary, urinary, and digestive systems. Basic contrast studies and pediatric radiography is also presented. Drug pharmacology and radiographic contrast media will be discussed. (Prerequisite: XRT 1020)

XRT 1040 X-Ray Technology IV (3)

Course content is designed to impart an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact exposure factors, image acquisition, display, archiving/retrieval, and image quality are included. This course also includes radiographic examinations of the cranium, mobile, and trauma radiography and a review of previously learned concepts from other professional courses. (Prerequisites: XRT 1030 and BSC 1122)

XRT 1105 (3) X-Ray Technology V

This course includes the study of pathology and disease. Computed Tomography (CT), and quality assurance. (Prerequisite: XRT 1040)

XRT 1106 X-Ray Technology VI (4)

The purpose of this course is to review the knowledge and skills underlying the performance of the major tasks typically required of an entry-level diagnostic radiographer. Students will also become familiar with the basic concept of technical reporting and evaluation. (Prerequisite: XRT 1105)

XRT 1107 Fundamentals of Radiologic Science and Health Care (1)

This course is designed to provide an overview of the foundations in radiography and the practioner's role in the health care delivery system. Principles, practices, and policies of the health care organization will be examined and discussed in addition to professsional responsibilities of the radiographer. (Prerequisites: XRT 1010, BSC 1121, and MA 1128)

XRT 1108 Medical Terminology for the Radiographer (2)

Students will be introduced to the origins of medical terminology and the word-building system used in the medical field. The words, abbreviations, and symbols used in the medical environment will be discussed. An orientation to the understanding of radiographic orders and interpretation of diagnostic reports will be addressed through the related terminology. (Prerequisites: XRT 1010, BSC 1121, and MA 1128)

XRT 2203 X-Ray Physics (3)

This course will provide the student with knowledge of basic radiologic physics. Atomic theory, nature and characteristics of radiation, x-ray production, and fundamentals of photon interactions with matter are discussed. (Prerequisite: XRT 1030)

XRT 2221 Clinical Course I (3)

The main purpose of this course is to familiarize students with the proper operation and utilization of modern diagnostic radiologic equipment. Initially, students will receive a general orientation regarding the clinical facilities and policies. While under the direct supervision of clinical faculty and registered radiographers, students will perform the radiographic examinations presented in course XRT 1020. Students are required to demonstrate and practice the competencies, which are included in the course goals and objectives. (Prerequisite: XRT 1010)



XRT 2222 Clinical Course II (3)

Students will practice the competencies acquired in the previous clinical practicum and begin working towards achieving competency for radiographic examinations presented in course XRT 1030. Clinical rotations will begin in the specialty areas. Students are required to demonstrate and practice the competencies, which are included in the course goals and objectives. (Prerequisites: XRT 1020 and XRT 2221)

XRT 2223 Clinical Course III (3)

Students will continue to practice the competencies acquired in previous clinical courses while working towards achieving competency for examinations of the skull. Emphasis will be placed on radiographic examinations from courses: XRT 1020, 1030, and 1104. Clinical rotations will continue in the specialty areas. Students will also begin an evening clinical rotation which emphasizes trauma radiography. Students are required to demonstrate and practice the competencies which are included in the course goals and objectives. (Prerequisites: XRT 1030 and XRT 2222)

XRT 2224 Clinical Course IV (3)

Students will have the opportunity to demonstrate competency on general diagnostic examinations of most systems of the body, while continuing to practice the competencies acquired in previous clinical courses. Clinical rotations in specialty areas will continue. Students are required to demonstrate and practice the competencies, which are included in the course goals and objectives. (Prerequisites: XRT 1040 and XRT 2223)

XRT 2225 (3) Clinical Course V

During this final clinical practicum, students will complete clinical assignments that require the demonstration of competency in a wide variety of general diagnostic entry-level radiologic examinations. Students will have a final opportunity to practice competencies achieved in previous clinical practice. Clinical rotations through the specialty areas will be completed. Students are required to demonstrate and practice the competencies, which are included in the course goals and objectives. (Prerequisites: XRT 1105 and XRT 2224)

General Education

BSC 1121

Human Anatomy & Physiology I (4)

This course presents an integrated approach to the study of the anatomy and physiology of various organ systems of the human body.

BSC 1122

Human Anatomy & Physiology II (4)

A continuation of BSC 1121. Completes an integrated approach to the study of the anatomy and physiology of the various organ systems of the human body.

MA 1128 College Algebra (3)

Review of ideas in basic algebra, graphs, equations, inequalities, and a strong emphasis on functions (general, polynomial, rational, exponential and logarithmic).

ENG 1112 Composition I (3)

Intensive reading and writing of expository prose. Analytical and critical thinking and college-level research skills are emphasized. Pre-requisite: exemption from ENG 0090 or equivalent transfer course.

SOC 1101 Introduction to Sociology (3)

Introduction to the basic concepts, premises and techniques involved in the scientific approach to the study of human societies. Analysis is made of selected aspects of social behavior at interpersonal, intergroup and societal levels of contemporary American society.

COM 1101 Oral Communication (3)

The objectives are to help the student to formulate his/her own ideas coherently, evaluate factual material and use sound reasoning patterns in his/her preparation and attempts to communicate concepts orally, to determine and select the most effective means of expression in formal and informal speaking situations.

COM 1102 Effective Public Speaking (3)

COM 1102 introduces students to the principles of effective communication, with a specific focus on public speaking. Course topics include audience analysis, organization structure, the use of supplementary visual and auditory aids, components of different types of speeches, and delivery elements. Students will develop public speaking skills through in-class activities, collaborative learning, peer critiques, and analysis of public speeches and other messages.

COM 1103 Speaking Effectively in Groups (3)

COM 1103 introduces students to principles of effective communication with a specific focus on speaking formally and informally in groups. Course topics include the basics of communications, developing effective speaking skills in a group context, group dynamics, teamwork, and problem-solving. Students will participate in various types of group presentations and engage in analytical message critique. This course enables students to work more effectively in groups, develop teams, lead, and make effective group and individual presentations.

PHL 3380 Health Care Ethics (3)

Health care does no exist in a vacuum and neither do the concepts learned in this course, which offers a thorough examination of the arguments designed to provide solutions to moral problems commonly faced by patients and health care providers. Topics include: confidentiality; reproductive rights; death, dying and euthanasia; the distribution of scarce resources (including health insurance plans). No background in philosophy or in medicine is necessary. Prerequisites and Notes: Must have 30 earned credits.

PSY 1101 Introduction to General Psychology (3)

This course is designed to familiarize students with the application of scientific psychology to human life. Emphasis is on "normal" behavior and its antecedents. It includes the study of broad categories of human behavior through various psychological models.

Medical Laboratory Science/Medical Technology Program

Staff and Specialty Areas

Brian D. Spezialetti, MS Ed., MT(ASCP)..... Program Director Barbara Tubby, BS, MT(ASCP)SBB...... Immunohematology Michael Katchuk, BS, MT(ASCP)..... Point of Care Testing Nicole Osman, MT(ASCAP)..... Lab Administrator Jennifer Lison, BS, MT(ASCP) Technical Specialist for Hematology Maureen Villanti, BS, MT(ASCP), SM Microbiology Technical Supervisor Nikki Wolfe, BS, MT(ASCP) Chemistry Technical Supervisor Stacy Pond, MS, MT(ASCP) Lecturer in Hematology/Chemistry Stacye Allington, BS, MT(ASCP) Lab instructor for Bacteriology Molly Fagnan, BS, MT(ASCP)..... Lab instructor for Bacteriology Tom Shay, BS, MT(ASCP)..... Lecturer in Chemistry/Molecular Diagnostics Cindy Horrocks, BS, MT(ASCP)..... Lecturer in Bacteriology Cyera Mosier, BS, MT(ASCP) Lab Instructor Caitlin Kinsley, BS, MT Lab Instructor Ed Sperduto Histology Supervisor



The Profession

Medical technologists are laboratory scientists who perform laboratory tests used in the diagnosis and treatment of disease, health maintenance, drug monitoring, organ transplantation, and forensic medicine. Medical technologists are a vital member of the health care team.

Medical technologists utilize the latest technology to perform laboratory tests. They use state-of-the-art analyzers, complex computers, microscopes, and precision instruments in assisting with the diagnosis and treatment of disease.

Students in the Medical Technology program are educated to be clinical laboratory scientists. This incorporates the sciences of hematology immunology, clinical chemistry, medical microbiology, clinical microscopy and blood banking sciences. The internship provides the theoretical foundation in the clinical sciences and is complemented by an extensive clinical laboratory experience at the Guthrie Clinic clinical laboratory.

Emerging Roles for Medical Technologists

New roles for the laboratory scientists in the next century are in the fields of:

- DNA Biotechnology
- Virology
- Immunology
- Reproductive Endocrinology
- In-vitro Fertilization Technology
- Molecular Biology
- Forensic (CSI) Sciences

Career Opportunities

There is a steady need for laboratory professionals nationwide more now than ever. Employment opportunities are abundant and career options are limitless. A career in medical technology gives the student the opportunity to work in a variety of fields with a baccalaureate degree with the advancement potential and at the same time, allows the student mobility throughout the country. Our program has a 100% employment rate for the past several years.

The majority of medical technologists/laboratory scientists work in the health care field. Numerous career opportunities exist for laboratory professionals in:

- Health Care Laboratories
- Physicians Office Laboratories

- Forensic Laboratories (CSI Labs)
- Government Laboratories (CDC, NIH, NCI)
- Research Foundation or University Laboratories
- Pharmaceutical or Industrial Laboratories
- Veterinary Clinics
- University Laboratories

Educational Opportunities

The rapid evolvement of clinical laboratory science as a profession is reflected in the advancement of training into post-graduate areas. Several universities now offer Masters and Ph.D. degrees in laboratory sciences. Many administrative positions are available to qualified technologists in hospitals, industry and as program directors for clinical laboratory science programs. Certification in management is now available.

Laboratory Careers for Biology Majors

Clinical Laboratory Sciences is an excellent career choice for Biology Majors who are looking for an exciting career that is both academically stimulating and socially rewarding. This option will enable biology graduates to enter the workforce without having to seek an advanced degree in the biology field. Students only need to meet the admissions requirements

and complete the professional oneyear internship at Robert Packer Hospital. Students interested in this option should apply to the program at the beginning of their senior year.

Program Officials

The Medical Technology/Clinical Laboratory Science Program is administered by: Brian D. Spezialetti, M.S., M.T.

(ASCP), Program Director

Mission Statement

The Robert Packer Hospital School of Medical Technology has the following purposes:

- 1. To provide the highest quality education in Medical Laboratory Sciences to our students.
- 2. To prepare our graduates to make meaningful contributions toward enhancing the quality of health care and medical decisions.
- 3. To create learning experiences that will enable the graduate to become an integral member of the healthcare team.
- 4. To promote the principles of life- long learning.
- 5. To provide opportunities, instruction, and guided experiences by which students may gain the basic knowledge and skills essential to the practice of their profession.

Program Goals

- 1. To provide a high quality, stimulating academic curriculum which will provide preparation in all disciplines of the medical laboratory sciences to establish a strong knowledge base for students.
- 2. To provide and ensure a thorough and effective clinical program which correlates and supports the



foundation of knowledge base.

- 3. To assist students in preparation for national certification examinations.
- 4. To prepare graduates as entry level medical laboratory scientists.
- 5. The program will continuously monitor its program effectiveness.
- 6. The program will promote student and employer satisfaction.

Statement of Non-Discrimination

The Robert Packer Hospital School of Medical Technology/Clinical Laboratory Science does not discriminate on the basis of race, gender, color, age, national origin, disability, and marital status in the recruitment of students, the recruitment and employment of faculty and staff, or the operation of the program activities, as specified by Federal and State Laws and Regulations.

Admissions Procedures

Application materials may be secured by writing or by a telephone call to the Program Director.

To be considered for admission, applicants must submit the following:

- 1.An official application form.
- 2. The \$10 application fee.
- 3.An official transcript from the College or University.
- 4. Three letters of recommendation.
- 5. Arrangement for a professional interview with the Program Director.

When to Apply

The application period is from August 1 through October 31 each year. Applications should apply to the medical technology program approximately one year prior to the anticipated year of admission. For example, if you anticipate attending our program during your senior year, then apply at the beginning of your junior year.

The deadline for applications is October 31st of each year.

Admission Requirements

Admission to the program is determined by academic and personal qualifications. Acceptance will be

considered by the Program Director upon evaluation of the applicant's official transcript, letters of recommendation and personal interview.

Admission to the program will be considered when the applicant has met the following criteria:

- 1. Submittal of application form and fee.
- 2.Official transcript from college or university.
- 3. Three letters of recommendation from academic sources.
- 4.A minimum GPA of 2.7 maintained throughout academic history.
- 5.Minimum grade of "C" in all required prerequisite courses.
- 6. Completion of at least 90 credit hours of academic credit.
- 7. Compliance with Essential Functions (described in this catalog).

Required Coursework for Admission

CHEMISTRY - (16 semester). 8 credit hours in general chemistry. 8 credit hours of Organic Chemistry. 4 credits of biochemistry is highly recommended for New York State applicants. Other courses to fulfill the requirements may be selected from qualitative or quantitative chemistry, biochemistry, and instrumental analysis.

BIOLOGICAL SCIENCES - (16 semester hours). Minimum 3 credit hours of Microbiology or Bacteriology; 3 credit hours of immunology, as a separate course is required; 3 credits in physiology; 3 credits in Molecular Biology/Molecular diagnostics.

MATHEMATICS: A minimum of 3 credit hours in math Statistics is required.

All prerequisite course work must be completed prior to admission to the medical technology program.



Curriculum for Clinical Laboratory Science Program/ Medical Technology

The Program combines a high caliber education with a state-of-the-art learning environment to provide a 50-week internship consisting of two terms. Term I is an academic term which includes lectures and laboratory assignments in each of the laboratory disciplines listed below. Lectures are conducted Monday through Friday. The lecture schedule is closely correlated to the laboratory sessions each day. Each of the courses below is presented singly and does not overlap with another. Term I is supplemented weekly with clinical exposure in the Pathology laboratory.

Term II of the Program is the clinical rotation of the internship. Students are exposed to the various departments in the clinical laboratory through a structured rotation. Students are evaluated weekly for performance objectives. During Term II, the Independent Seminar is presented along with the Practicum in Management and Education.

To complement student learning, numerous video series, self-directed instruction programs and computer assisted software are available to the student. Students are encouraged to attend Medical Grand Rounds throughout the internship. There are no weekend or holiday requirements.

Upon successful completion of the internship, the student receives a baccalaureate degree from their affiliated university and a certificate in Clinical Laboratory Sciences from the Program.

Course No.	Course Description	Classroom Hours	Supervised Lab Hours	Clinical Rotation Hours	Credits
MT-0	Blood Collection/ Phlebotomy	5	55	35	0
MT-1	Urinalysis and Body Fluids	26	26	24	3
MT-2	Hematology and Coagulation	50	48	175	5
MT-3	Clinical Chemistry	60	60	140	6
MT-4	Immunohematology/ Blood Banking	30	40	160	3
MT-5	Serology/Immunology Molecular Biology	30	25	70	3
MT-6	Parisitology	20	10	8	1.5
MT-7	Bacteriology/ Virology	70	80	200	7
MT-8	Mycology	20	8	8	1.5
MT-9	Management/ Education Practicum	10	0	0	1
MT-10	Independent Seminar	10	0	0	1
MT-11	Histologic Techniques	0	0	40	0
	TOTALS	327	352	860	32

Essential Functions for Admission

The applicant must be able to:

- Visually distinguish red and blue colors.
- Communicate in oral and written English.
- Manipulate laboratory glassware in the mixing, transferring, and pipeting of reagents.
- Operate minor lab instruments, i.e. centrifuges, and spectrophotometers.
- Operate technical equipment with both hands simultaneously.
- Perform microscopic examinations on various specimens.

Preadmission Health Examination and Hepatitis B Immunization

Required for entrance into the program is a physical examination which must be completed prior to the admissions date. The PRE-EN-TRANCE PHYSICAL EXAMINATION form will be forwarded to you after you have been accepted for admission to the program.

The Guthrie Healthcare System now requires students entering any of the health sciences programs to receive the Hepatitis B immunization series. This is a mandatory requirement for admission. The PRE-ENTRANCE HEALTH EXAMINATION and Hepatitis B immunization should be completed prior to August 1 of each year of admission. Allowances are made for late acceptances only.

Mandatory Immunizations, Drug Screens and Insurance for Admissions

- 1. Completed health examination form.
- 2. Results of a 10 panel urine drug screen/with EXPANDED OPIATES, Within 3 Months of Start of the Program.

Verification of required immunizations to include:

- Hepatitis B #1, #2, #3 and Hepatitis B titre
- MMR #1
- MMR #2 (total of two vaccines)
- Varicella #1
- Varicella #2 (total of two vaccines) or documentation of positive Varicella Titre
- Tdap (once as an adult), (not the Dtap or Td). Dtap < 19 years does not meet the requirement
- Polio

- PPD #1 (within one year of start of MLS program)
- PPD #2 (within 3 months of start of program) or T-Spot TB test results (age 17 yr and older) [better than the two step PPD]

Proof of Health Insurance (not liability). It is a requirement for admission to have a photocopy of your (or your parents') medical insurance coverage.

Professional Liability Insurance

All Guthrie students are required to maintain professional liability insurance to while attending Guthrie programs on campus. Documentation must be submitted to the Program Director prior to start of the program in August. To purchase professional liability insurance, students may contact Pro Liability insurance at www.proliability.com for a free quote. A minimum coverage of \$1,000,000 per incident, \$3,000,000 aggregate must be purchased. The cost is about \$35 for one year. Click on Student at the Left column, select student (non physician), select no association at appropriate ques.

Course Descriptions MT-1

Urinalysis And Body Fluids (3)

In this course, students will student the anatomy and physiology of the kidney and excretory system. Student will beable to discuss and explain the medical biochemistry of renal function, the histology of the kidney and glomerulus, and the interpretation of urinalysis tests. Emphasis fo this course is on specimen collection and preservation, laboratory test procedures, clinical microscopy, histology of urine sediment, clinical significance and interpretation of laboratory results. The course also covers laboratory procedures and clinical significance of analysis of spinal fluid, seminal fluid and other body fluids commonly examined in the laboratory. Lectures, text reading assignments, lab exercises and problem based case studies are used to teach this course. 2 Class Hours, 2 Laboratory Hours per day.

MT-2 Hematology And Coagulation (5)

This course is a comprehensive study of the hemopoietic and hemostasis systems. Major concepts of this course are the histology and morphology of normal and abnormal red blood cells, white blood cells and platelets. Students will study the medical biochemistry of iron deficiency vitamin B12/Folate deficiency anemia and the medical biochemistry of various hemoglobinopathies, determination of blood measurements in anemias, leukemias and other blood diseases, The medical biochemistry of coagulation, fibrinolysis, coagulopathies, and laboratory procedures for coagulation testing will be covered in detail. Emphasis is on histology and morphology of red and white blood cells, biochemical test principles, analytical procedures, and clinical interpretation of routine and special tests. The course is presented using lectures, lab exercises, and problem based case studies. 2 Class Hours, 3 Laboratory Hours per day.

MT-3 Clinical Biochemistry (6)

This course is designed to give the student a comprehensive and sequential overview to the study of Medical Biochemistry and human pathophysiology. The contents of this course will introduce the student to specimen collection, transport and storage, specimen variable and laboratory mathematics. This course will also cover the concepts of Spectral techniques, immunoassays, quality control and quality assurance. This course is intended to present the concepts of chemical principles, reference ranges, test method evaluation and clinical significance of the following selected chemical components: carbohydrates, non-protein nitrogens, electrolytes, acid-base physiology, blood gas physiology, proteins, lipids, enzymes, Liver function, cardiac markers, tumor markers, endocrinology, vitamins, and calcium-phophorus metabolism. The student will also be introduced to the topics of Toxicology and therapeutic drug monitoring. 2

Class Hours, 2 Laboratory Hours per day.

MT-4 Immunohematology (3)

Introduction to immunohematology and blood banking. This course covers the biochemistry, genetics and laboratory techniques for the testing of the ABO, Rh and other blood group systems. Emphasis is on ABO grouping, RH typing, direct anti-globulin testing, indirect anti-globulin testing, pre-transfusion (compatibility) testing, antibody identification with panels, component preparation and storage, transfusion therapy, donor requirements for blood donation, fetal-maternal blood baning and pre-natal testing, and quality assurance in the blood bank. 2 Class Hours, 2 Laboratory Hours per day.

MT-5 Medical Immunology/Serology and Molecular Biology/Molecular Diagnostics (3)

This course is the study of biochemistry and physiology of the immune system to include the study of humeral and cell mediated immunity, complement, hypersensitivity, auto-immunity, immunodeficiency, tumor immunology, transplant immunology, viral hepatitis, and the serology of infectious diseases such as syphilis, Rubella, HIV, and Epstein Bar Virus. Emphasis is on biochemical principles, laboratory procedures, clinical significance and interpretation of laboratory results. Laboratory tests include, antibody quantitation, agglutination tests, immunoelectrophoresis, fluorescent antibody tests, enzyme immunoassay, PCR and Western Blot techniques. 2 Class Hours, 2 Laboratory Hours per day.



Molecular Biology/diagnostics:

This Section of the course is a comprehensive introduction to the principles of molecular biology and molecular diagnostics. This course covers with an overview of essentials unique terminology, clinical applications, advantages, and disadvantages of molecular diagnostics. Most importantly, the principles behind molecular diagnostics are presented in detail, giving a strong foundation in laboratory techniques in molecular biology with an emphasis on molecular diagnostics, DNA replication, transcription, translation, gene expression and regulation, recombinant DNA and RNA techniques, DNA/RNA hybridization techniques and DNA/ RNA amplification techniques such as PCR, and real time PCR, Southern Blot, Northern Blot and Western Blot analysis.

MT-6 Medical Parasitology (1.5)

This course is the study of medically important parasites of man. Topics includes the introduction to the theory, practical application, technical performance and evaluation of procedures for isolation and identification of medically important parasites of man and other animals. Emphasis is on the identification, of Nematodes, Cestodes, Trematodes, Protozoans and Sporozoans and the study of their life cycles and laboratory techniques. 2 Class Hours, 1.5 Laboratory Hours per day.

MT-7 Medical Bacteriology-Virology (7)

This course is a comprehensive study of medically important pathogenic bacteria. Course topics include: specimen handling, staining methods, media/culture methods, rapid diagnostic tests, serologic grouping, taxonomy, morphology, metabolism, pathology, and growth requirements and biochemical characteristics, culture techniques, biochemical identification, transmission, and antibiotic susceptibility testing of medically important bacteria, mycobacteria, rickettsia, and viruses. Fundamentals of virology including structure, classification and pathology and laboratory techniques. 2 Class Hours, 3 Laboratory Hours per day.

MT-8 Medical Mycology (1.5)

Mycology is the study of pathogenic fungi of medically important fungi to man. Topics included are classification, nomenclature, methods of culture and colony morphology and identification, identification of genus and species based on microscopic morphology of selected fungal species, study of fungal diseases and antifungal therapy. 2 Class Hours, 1 Laboratory Hour per day.

MT-9 Laboratory Management/ Education (1)

This is a student self-directed study of the principles of managing a clinical laboratory. Emphasis is on leadership theory, human resource management, communications, marketing, budgeting, problem solving, regulatory issues, inventory and laboratory information systems. Educational topics include: learning theories, program development and evaluation, instruction media, domains of learning and test development 15 - 20 Total Class and Project Hours.

MT-10 Seminar (1)

The seminar is design to develop the student's understanding and evaluation of published research design and practice. The seminar prepares the student to be an informed consumer of research published in the field. The course is designed to develop the student's use of the library and Internet resources, evaluation of research, critical thinking skills, and oral presentation skills. The student is responsible for topic selection, liturature search, presentation development and poster board presentation. This project is completed with the guidance of the program director. A professional oral presentation and poster required for this course.

Expenses

Tuition and fees will be billed to you upon your arrival to Robert Packer Hospital. At that time they will be payable in 30 days. Please note that the cost for textbooks is estimated. The cost for residence housing applies only if you should choose to live in the Residence Building. The Meal Plan is not mandatory. One half of this amount must be paid upon admission and the other half is payable by March 30.

Program Fees

Please refer to our website for the up-to-date fee schedule at www.guthrie.medtech.com.

Scholarships, Student Work Program and Payment Options

Although the Guthrie Medical Technology program does not qualify to handle and disperse Federal and State financial aid, if you plan to attend the program as your senior year and you receive financial aid through your college, you may continue to qualify for financial aid through your college for the senior year internship. (Use your college FA code when applying for financial aid for the senior year internship only.) If you have already graduated with your baccalaureate degree, you no longer qualify for Federal and State financial aid. Student in this category usually pay for their tuition and fees using personal loans, credit cards or they may opt for our monthly student payment plan which takes the yearly tuition and fees and spreads the payments over a 10 month payment plan.

Student Work Program

Accepted students in the Medical Technology Internship will have the opportunity to apply for part time jobs in the Guthrie Clinical Laboratory. This provides students with the opportunity to work in a real clinical setting, gain experience, and offset their financial obligations. Guthrie may hire up to 2 to 4 students per year. Once your are accepted to the internship, you will be notified when the application period is (usually in May or June of each year).

Grading, Evaluations, and Records

Students are thoroughly evaluated during the internship in three areas:
1) cognitive abilities, 2) professional behavior, and 3) psychomotor performance. The grade code for written examinations is defined as follows:

A:	94 - 100%	4.00
A-:	92 - 93%	3.70
B+:	89 - 91%	3.33
B:	86 - 88%	3.00
B-:	84 - 85%	2.70
C+:	82 - 83%	2.33
C:	79 - 81%	2.00
C-:	76 - 78%	1.70
D:	73 - 75%	1.33
D-:	70 - 72%	1.00
F:	Below 70%	0.00

Students must maintain a minimum grade of 70% in each course listed in the curriculum catalog. Students are evaluated on behavioral (affective) characteristics such as cooperation, motivation, team work, communication, dependability, appearance, and ethical awareness. In addition, written evaluations on technical and manual performance (psychomotor performance) of laboratory procedures will be maintained for each student.

The student academic record will contain applications, letters of recommendation, official transcripts, and written notices. The academic records are maintained indefinitely. Academic records are available for view by the student at any time.

Attendance Requirements

Class attendance is expected of all students. Students are expected to participate in an appropriate manner. Absence from class is considered a serious matter and never excuses a student from assignments. A student must complete all assignments, examinations and other requirements.

The Program understands, however, that students may need to be absent from classes. A student who presents the Program Director with an adequate and documented reason for an absence will be given an opportunity to make up the work missed.

Student-interns are allowed five (5) personal days and five (5) sick days to use throughout the program. These days are generally used for graduation or job interviews during Term II. They may not be used concomitantly, i.e. 5 days in a row, to be used as a vacation week. This would result in too much of the clinical rotation being missed.

If the student-intern is absent for more than the five personal days and five sick days, this time must be made up at the end of the internship. Certificates of graduation may be withheld if the time is not made up.

Requirements for Graduation

Common requirements for graduation are successful completion of all courses for the certificate/degree as contained in this catalog. The student must maintain a 70% average in all courses contained in this catalog. The student must satisfy all obligations to the Program and specific curriculum requirements. Student must meet attendance requirements. All tuition and fees must be paid in full, prior to graduation. If full payment is not received, certificates of graduation may be withheld until full payment is received by the Guthrie Finance Office.

Professional Certification

Upon successful completion of the college curriculum and clinical internship, the student becomes eligible to sit for nationally recognized certification examinations, administered by two agencies. They are The American Society for Clinical Pathologists (ASCP) Board of Certification, and The National Certification Agency for Laboratory Personnel (NCALP). The examinations are generally given in July and August of the academic year. One or both examinations may be taken. The successful examinee is then entitled to use either the letters C.L.S. or M.T. (ASCP) after his/her name.

Granting of the baccalaureate degree and the program certificate are not contingent upon passing either of the certification exams.

Student Health Services

Health services to students enrolled in the program are provided by the Guthrie Clinic, Family Practice Center. All students seeking health care should contact the Family Practice office between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. The students must identify themselves as students of the medical technology program. Not all the services received at the Family Practice clinic may be covered by the health care fee.

In an emergency, students can go directly to the Robert Packer Hospital Trauma Center (Emergency Room). If other health care services are necessary, they may be obtained at the Guthrie Clinic. Medical services at the hospital

and clinic are not free.

The Program does not provide medical insurance; however, it is required that students have adequate health insurance coverage.

Student Counseling/Advising/ Guidance Services

The Program takes an active role for providing an orientation in the beginning of the academic year. Sessions involve familiarization of the campus, services available to the students, and discussion regarding the transition to a professional internship.

Academic counseling is available to help students put their efforts into proper perspective by analyzing study, social and work habits to enable them to utilize their time in the most efficient way.

Personal counseling is available for students experiencing social, personal, or family concerns. Counseling is offered through the Robert Packer Hospital Employee Assistance Program (EAP). The program will maintain confidentiality and impartiality of student counseling/advising/guidance of all students through the program.

Withdrawal and Tuition Refund Policy

The School of Medical Technology has committed itself to a philosophy of providing assistance necessary to aid the student in completing his/her academic goals. Students are encouraged to seek academic and personal counseling prior to withdrawal.

Students who decide to withdraw must notify the program director in writing. Failure to do so may cause the student to lose any possible refund. The date on which the original request for withdrawal is filed is considered the official date of withdrawal. Any refund to which the student may be entitled is computed using this date.

Refund of institutional tuition and fees will be made according to the following schedule only when:

1.A student voluntarily withdraws from the program because of personal illness, certified by an attending physician, or because of other reasons as may be approved by the Program Director.

Refund Schedule Before 1st day... 100% 1st week........ 75% 2nd week 60% 3rd week 40% 4th week after the 4th week no refund will be paid

The same policy and schedule will apply for Term II of the program beginning in March.

When the student pays tuition and fees to the college affiliate rather than directly to the Program, and said college then pays the Program tuition and fees, this policy will be implemented and tuition refunded according to the college.

Leave of Absence Policy

This policy provides a provision for medical technology students who need to leave the education program for periods of time due to certain life events such as birth/maternity, adoption, illness, military leave and FMLA federal laws. A leave of absence (LOA) is defined as an approved absence away from the required curriculum in excess of five days. Reasons for an LOA include but are not limited to personal illness, maternity, injury, adoption, military leave and immediate family member illness.

With the exception of absence from personal injury or illness, the student must submit a request for LOA in writing to the Program Director as soon as possible. When the leave is foreseeable, the student must provide a minimum of 30 days notice and make efforts to schedule the leave so as to cause the minimal disruption to the completion of course objectives and requirements.

The LOA is generally granted on the assumption that the student will be able to return to the internship on a specified date, usually within six weeks. Students returning from LOA must confirm their return date with the program director at least two weeks prior to their scheduled return. Failure to return on the specified date of return may result in suspension from the program.

Upon return to the program, the student is required to make up or complete all missed courses and clinical rotation obligations.

Students who miss required course work, courses or clinical rotations are required to complete the course work during the next academic term as an independent study or during the next academic year. Students returning from LOA during the clinical rotation, will resume their clinical schedule in cycle and make up any missed assignments at the end of their rotation cycle until all assignments have been completed. All academic assignments and obligations must be completed within 12 months. All students must complete the requirements for graduation as stated in this catalog.

Admission of Individuals with Foreign Degrees

1. Prior to application to the Medical Technology Program, individuals who hold foreign educational degrees must have their credentials evaluated by a registered member of the National Association of Credential Evaluation Services (NACES).

2. Evaluation of foreign academic credentials is necessary for determining if the applicant satisfies the minimum requirements for admissions required by the Program.

3.Individuals who possess a foreign baccalaureate degree and wish to enter the program must satisfy at least one of the following criteria:

- A. Possession of a foreign baccalaureate degree with a major in either chemistry or biology. Course work must meet the minimum requirements of this program as specified in this catalog.
- B. Possession of a foreign baccalaureate degree in either general studies or in a professional area with a minimum of 90 academic semester hours or equivalent which are exclusive of any practical clinical components, including 16 semester hours or equivalent in both chemistry and biology. The course work must meet the requirements of the program.
- C. Admission to an accredited graduate program in a United States university should also be accept-

able when the college or university has accepted the foreign degree, regardless of the declared major. The course work must meet the requirements specified by the program and should be subject to review and evaluation by the program director.

4.Information on credential evaluation services may be obtained through the office of the program director. Students with foreign degrees should initiate their credential evaluation well in advance of the academic year planned for enrollment.

Verbal and Written English Requirements

Applicants with foreign degrees or who have completed three or more years of education at a foreign university must be able to demonstrate competent use of oral and written English at the college level. Applicants with foreign degrees (or 3 years foreign education) are required to submit test scores from the TOEFL (Test of English as a Foreign Language) examination and must have a minimum score of 550 (paper examination) or 220 (computer examination) to be considered for admissions to the medical technology program. Exceptions to this policy are those students who have a bachelor's degree from accredited universities in Australia, UK, Canada (except Quebec), and Ireland or international students with a bachelor's/master's degree from an accredited university from the United States. An official copy of the report must be sent to the Program Director. Admissions decisions will not be made without the official results of such an assessment. Submission of results does not guarantee acceptance into the Program. Any fee for the evaluation is the responsibility of the student candidate.

University Affiliations of the Program Bloomsburg University

400 East Second Street Bloomsburg, Pa 17815-1301 Judy Kipe-Nolt, Ph.D. Department of Biology/Allied Health Sciences 570-389-4319

Clarion University

909 E. Wood Street. Clarion, PA 16214 Douglas M. Smith, Ph.D. Professor of Biology 357 Science and Technology Center 814-393-2561

East Stroudsburg University of PA

200 Prospect Street East Stroudsburg, PA 18301 Abdalla Aldras, M.S.P.H., Sc.D. Director of Biotechnology Program Director of Medical Technology Program Room 226 Science and Technology Building 570-422-3704

Elmira College

One Park Place Elmira, NY 14901 607-735-1852 Christine Bezotte, Ph.D. Department of Biology

King's College

133 N. River St. Wilkes-Barre, Pa 18711 Mary Sanders, Professor Biology and Pre-Health Professions Advisor 570-208-5900 Ex. 5726

Mansfield University

31 S. Academy Street Mansfield, Pa 16933 Stephen Hensley, Ph.D. Department of Biology 570-662-4533

Marywood University

2300 Adams Ave. Scranton, Pa 18509 Deanne Garver, Ph.D. Department of Health Sciences 570-348-2478

Wilkes University

84 West South St. Wilkes-Barre, Pa 18766 William Biggers, Ph.D. Professor and Chair, Division of Biology/Health Sciences 570-408-4763

Program Outcomes/Statistics

Certification Exam Pass Rate

- 2018 100%
- 2017 100%
- 2016 100%
- 2015 100%
- 2014 100%

5-year Certification Examination Pass Rate: 100%

Graduation Rate

- 2018 100%
- 2017 100%
- 2016 100%
- 2015 100%
- 2014 100%

5-year Graduation Rate: 100%

Employment/Placement Rate

- 2018 100%
- 2017 100% 2016 100%
- 2015 100%
- 2014 100%

5-year Employment/Placement Rate: 100%

Professional Membership to the A.S.C.L.S.

The American Society for Clinical Laboratory Sciences is the national professional society to which certified medical technologists are eligible to belong. Students enrolled in a Medical Technology/Clinical Laboratory Science program are also eligible to join A.S.C.L.S. as student members. A student forum exists within A.S.C.L.S. for active student participation. As with many professional organizations, this offers an opportunity to share in the business and technical progress of medical technologists as a group. The society is organized on a state and local basis with the national organization.

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences, (NAACLS) 5600 N. River Rd., Suite 720, Rosemont, Illinois 60018-5119

Phone: (847) 939-3597



Information

To contact the director of any of these programs, call the numbers listed below:

Sheila Merrill

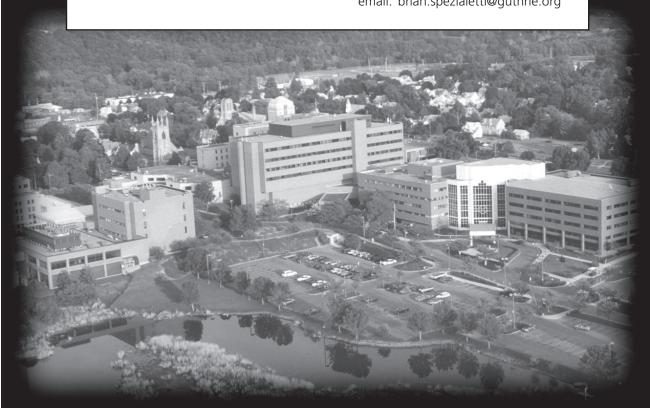
Respiratory Therapy

email: sheila.merrill@guthrie.org

Brian Spezialetti

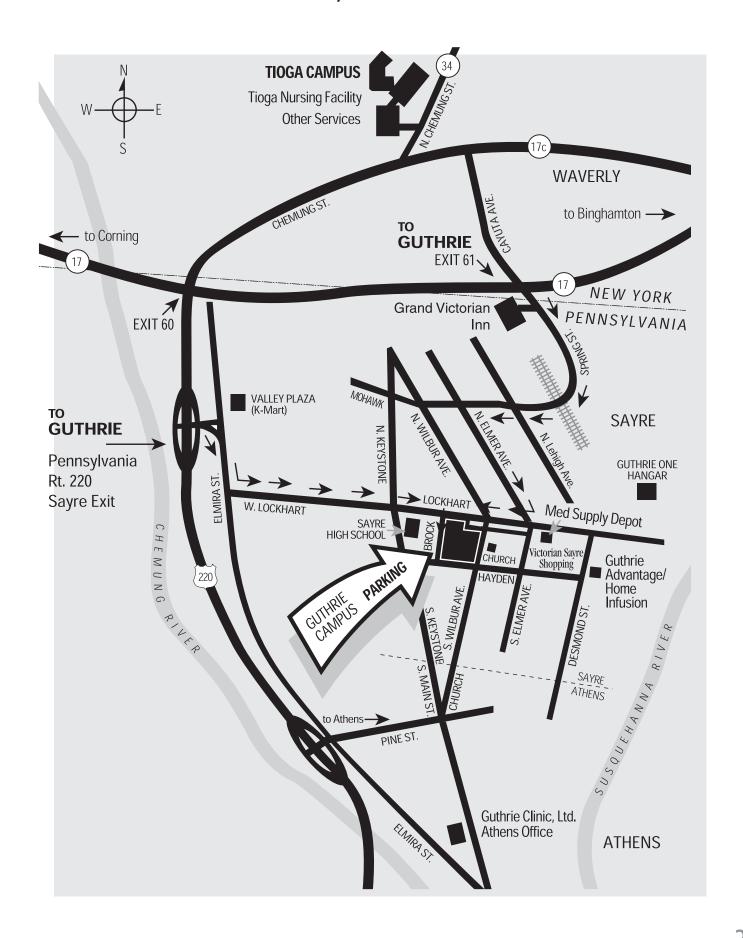
Medical Laboratory Science Program/Medical Technology.......570-887-4736 www.guthrie.org/medtech

email: brian.spezialetti@guthrie.org



SAYRE, PENNSYLVANIA

Routes to Sayre & Medical Center



Guthrie Sayre Campus

- A Sumner Administration Bldg.
 B Guthrie Learning Center/
 Student Residence
- Patterson Education Bldg. Behavioral Science Bldg. (Psychiatry/Day Treatment)
- Emergency Entrance
 Guthrie Foundation & Resource Development Office
- **G** Guthrie Clinic Entrance
- Guthrie Robert Packer Hospital Entrance
- Heliport
- Marketing & Public Relations Office
 Receiving/Loading Docks

