



Medical Technology, BS

Department: Nursing and Allied Health Professions
College: [Health and Human Services](#)
Website: <https://www.iup.edu/rn-alliedhealth/undergrad/allied-health-majors/medical-technology-bs/index.html/>
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Accreditation: All the affiliates are accredited by the [National Accrediting Agency for Clinical Laboratory Sciences](#) (NAACLS). IUP is a state-owned university and accredited by the Middle States Commission on Higher Education.

Program Description: Medical technologists, also known as medical laboratory scientists, are vital healthcare detectives, uncovering and providing laboratory information from analyses that assist physicians in patient diagnosis and treatment, as well as in disease monitoring and prevention. These health care professionals use computers and sophisticated biomedical instrumentation technology in their work. Laboratory testing includes such specialties as chemistry, hematology, blood banking, immunology, microbiology, and molecular biology. Medical technologists generate accurate laboratory data needed to aid in the detection of cancer, heart attacks, diabetes, infectious mononucleosis, and identification of bacteria or viruses that cause infections, the detection of drug abuse, and many more critically important tests. Visit www.ascls.org and www.ascp.org for additional information on a career in Medical Technology.

Career Opportunities: There is a critical shortage of medical technologists, and the need is projected to intensify over the next several years. Graduates are aggressively recruited and enjoy 100 percent placement rate. In many cases, signing bonuses are offered. The median annual salary of medical technologists in May 2020 was \$54,180. Medical technologists are most often employed in hospital laboratories but may also find positions in laboratories located in pharmaceutical companies, the cosmetic and food industry, and in crime labs.

Program Features Upon graduation, students earn a minor in chemistry and with a few additional courses, a minor in biology in addition to their major in medical technology. They also complete the university's liberal studies requirements, which are designated to enable graduates to enjoy rich, full lives and to play constructive roles in their communities.

Program affiliations with IUP: The following programs maintain agreements of articulation with IUP: UPMC Altoona Regional Health System, Altoona; Memorial Medical Center, Johnstown; Pennsylvania General College of Health Sciences, Lancaster; the Reading Hospital School of Health Science, Reading; St. Christopher's Hospital for Children, Philadelphia; St. Vincent Health Center/Allegheny Health Network, Erie; UPMC Susquehanna Health, Williamsport; UPMC Chautauqua WCA Hospital, Jamestown, New York; and Wellspan York Hospital, York.

Certification: Completion of academic studies at IUP and of one year of clinical experience qualifies the student to take a national certification examination. Successful results on this examination lead to certification as a professionally qualified medical technologist/clinical laboratory scientist.



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Four-year Course Sequencing

Department: Nursing and Allied Health Professions
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Degree: Bachelor of Science
Calendar Year: 2022-2023
Website: <https://www.iup.edu/rn-alliedhealth/undergrad/allied-health-majors/medical-technology-bs/index.html>

Four-year Sequencing: The below four-year plan outlines the courses required in each semester of your baccalaureate degree. The goal is for you to visualize the years to come and understand what courses or other requirements are needed in order to graduate in four years. This also allows you to plan with your advisor for important engagement activities that support your higher education goals, such as planning for an internship, research, and/or study abroad. The summer and winter terms are also an opportunity to take courses or accomplish other goals.

Freshman Year: Fall			Freshman Year: Spring		
Course	Course Description	Credits	Course	Course Description	Credits
CHEM 111	General Chemistry I	4	CHEM 112	General Chemistry II	4
ENGL 101	Composition I	3	HIST	History 196/197/198	3
FINE ARTS	Fine Arts Requirement	3		Dimensions of Wellness	3
BIOL 150	Human Anatomy	4	BIOL 202	Prin. of Cell & Molecular Bio	4
	Total Fall	14		Total Spring	14

Sophomore Year: Fall			Sophomore Year: Spring		
Course	Course Description	Credits	Course	Course Description	Credits
PHYS 111	Physics I Lecture	3	PHYS 112	Physics II Lecture	3
PHYS 121	Physics I Lab	1	PHYS 122	Physics II Lab	1
CHEM 231	Organic Chemistry I	4	CHEM 332	Organic Chemistry II	4
*BIOL 250 or BIOL 241	Principles of Microbiology or Intro to Medical Micro	4		Social Science Elective (possible: Global and Multicultural Awareness)	3
ENGL 202	Composition II	3	Free Elective		3
	Total Fall	15		Total Spring	14

Junior Year: Fall			Junior Year: Spring		
Course	Course Description	Credits	Course	Course Description	Credits
CHEM 325	Analytical Chemistry	4	CHEM 351	Biochemistry	4
BIOL 240	Human Physiology	4	ENGL 121	Humanities Literature	3
BIOL 364	Immunology	3	MATH 217	Probability and Statistics	3
	Social Science Elective	3		Social Science Elective	3
	Free Elective	3	PHIL/RLST	Philosophy/Religious Studies	3
	Total Fall	17		Total Spring	16

Senior Year: 30 credits

Medical Technology courses are taught off campus for one calendar year at an affiliate School of Medical Technology. Students will not need to register for these courses. Thirty credits will be transferred from the affiliate School of Medical Technology and posted to the official Indiana University of Pennsylvania student transcript.



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Summary of Requirements

Department: [Nursing and Allied Health Professions](#)
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Degree: Bachelor of Science
Calendar Year: 2022-2023
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Summary of Requirements: This 120-credit program is divided into preclinical and clinical study. For the first three years, students study on the IUPUI main campus, where they commit to intense study in chemistry, biology, and physics. Following the first three academic years, students complete one calendar year of study in one of the many outstanding affiliate locations combining rigorous clinical practice and classroom instruction. Graduates are eligible to apply to take a certification examination offered by the Board of Certification of the American Society of Clinical Pathologists and are recognized as professional technologists by the designation of MLS (ASCP) after their names. Before starting the clinical year, students will need a complete physical examination, immunizations, and screenings as required by the affiliate hospital. During the clinical year, students are required to maintain CPR certification, carry professional liability insurance, and wear uniforms/lab coats. A criminal background check and child abuse history check may be required prior to the clinical year or before sitting for the certification examination.

Liberal Studies (44 credits)

Course	Credits	Grade
Learning Skills : English Composition (6 credits)		
ENG 101 Composition	3	
ENGL 202 Composition II	3	

Learning Skills : Mathematics (3 credits)		
MATH 217 Probability and Statistics	3	

Humanities (9 credits)		
HIST 196 or 197 or 198	3	
ENGL 121 Humanities Literature	3	
PHIL/RLST Select one from the course list	3	

Fine Arts (3 credits)		
Select one from the list	3	

Natural Sciences (8 credits)		
CHEM 111 General Chemistry I	4	
CHEM 112 General Chemistry II	4	

Social Sciences (9 credits)		
Select from the course list (GMA)	3	
Select from the course list	3	
Select from the course list	3	

Dimensions of Wellness (3 credits)		
Select from the list of courses	3	

Liberal Studies Elective (3)		
PHYS 111 Physics I Lecture	3	

Medical Technology Core Requirements (30 credits)

Course	Credits	Grade
Articulated courses in Medical Technology transferred from affiliation agreement	1	
CHHS XXX Clinical Microbiology	6-10	
CHHS XXX Clinical Chemistry	7-10	
CHHS XXX Clinical Hematology/ coagulation	4-7	
CHHS XXX Clinical Immunohematology	3-6	
CHHS XXX Clinical Immunology/ Serology	2-4	
CHHS XXX Clinical Seminar	0-6	

Other Requirements (40 credits)		
BIOL 150 - Human Anatomy	4	
BIOL 202 – Prin. of Cell and Molecular Bio	4	
BIOL 240 - Human Physiology	4	
BIOL 241 - Intro Medical Microbiology or BIOL 250 - Principles of Microbiology	4	
BIOL 364 - Immunology	3	
CHEM 231 - Organic Chemistry I	4	
CHEM 332 - Organic Chemistry II	4	
CHEM 325 - Analytical Chemistry I	4	
CHEM 351 - Biochemistry	4	
PHYS 121 - Physics I Lab	1	
PHYS 112 - Physics II Lecture	3	
PHYS 122 - Physics II Lab	1	

Free Electives	6	
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- [Global/Multicultural](#), 3 credits required but if you complete a Global Multicultural in the Social Sciences category, this is completed.
 - [Writing Intensive](#), 3 credit required, but programs have these courses built into the coursework, so talk with you advisor. Recommended BIOL 203 Genetics
- Review [DegreeWorks](#) for your progress toward the degree.