

Medical Technology ! College of Science and Mathematics

About the Program

Overview

Students may take advantage of three levels of preparation in Medical Technology education:

- **Associate in Applied Science** degree (A.A.S.) in Medical Laboratory Technology
- **Bachelor of Applied Science** degree (B.A.S.) with two tracks: Medical Technology, and Medical Laboratory Technology
- **Bachelor of Science** degree (B.S.) with a major in Biology and an internship following graduation

A post-degree **Certificate of Achievement** is also available.

Unique features

- Career ladder programs.
- Qualified faculty who are health care practitioners.
- Clinical theory coursework preparation prior to internship.
- Variety of clinical placement opportunities.

Program Specifics

Clinical internships are competitive and not guaranteed.

The Medical Technology major prepares students to intern in cytotechnology or histotechnology.

The Medical Laboratory Technician program prepares students to enter histotechnician internships.

Plans of Study - Bachelor's Degree

Medical Technology Option - Bachelor of Applied Science (71 s.h.)

Required Major Courses:

AHA 1010	Medical Terminology	2 s.h.
MTE 2010	Introduction to Health Care Professions	2 s.h.
MTE 3050	Clinical Hematology	4 s.h.
MTE 3070	Immunohematology & Serology	4 s.h.
MTE 3090	Hemostasis & Special Procedures	3 s.h.
MTE 3630	Clinical Chemistry I	3 s.h.
MTE 3650	Clinical Chemistry II	3 s.h.
MTE 3930	Clinical Internship I	4 s.h.
MTE 3940	Clinical Internship II*	4 s.h.
MTE 4950	Senior Seminar	2 s.h.

Biology Courses

BIO 2240	Basic Hum. Physiology (4 s.h.)	
BIO 2260	Microbiology (4 s.h.)	
BIO 3280	Immunology (4 s.h.)	
BIO 4270	Clinical Bacteriology (4 s.h.)	
<i>Chemistry Courses</i>		16 s.h.
CHM 1110	General Chemistry I (4 s.h.)	
CHM 1120	General Chemistry II (4 s.h.)	
CHM 2210	Organic Chemistry I (4 s.h.)	
CHM 3610	Biochemistry I (4 s.h.)	

Mathematics Courses

MTH 1050	Intermediate Algebra (4 s.h.)	
MTH 2350	Probability & Stats (4 s.h.)	
		71 s.h.

*MTIMPM students register for MTE 4510, 4520, 4530 for 2-10 s.h. each.

Recommended Electives:

AHA 4250	Health Care Law and Public Policy	3 s.h.
AHA 4740	Health Care Finance	3 s.h.
AHA 4760	Issues in Health Care Administration	3 s.h.
MGT 2360	Principles of Management	3 s.h.
MGT 3160	Human Behavior & Leadership	2 s.h.
MGT 3750	Allied Health Management	3 s.h.
		17 s.h.

Medical Laboratory Technician Option - Bachelor of Applied Science (51 s.h.)

Required Major Courses:

AHA 1010	Medical Terminology	2 s.h.
MTE 2010	Introduction to Health Care Professions	2 s.h.
MTE 3050	Clinical Hematology	4 s.h.

MTE 3070	Immunohematology & Serology	4 s.h.
MTE 3090	Hemostasis & Special Procedures	3 s.h.
MTE 3630	Clinical Chemistry I	3 s.h.
MTE 3650	Clinical Chemistry II	3 s.h.
MTE 3930	Clinical Internship I	4 s.h.
MTE 3940	Clinical Internship II	4 s.h.
MTE 4950	Senior Seminar	2 s.h.
<i>Biology Courses</i>		8 s.h.
BIO 2240	Basic Human Physiology(4 s.h.)	
BIO 2260	Microbiology (4 s.h.)	
<i>Chemistry Courses</i>		8 s.h.
CHM 1110	General Chemistry I (4 s.h.)	
CHM 1610	Life Chemistry (4 s.h.)	
<i>Mathematics</i>		4 s.h.
MTH 1050	Intermediate Algebra (4 s.h.)	
		51 s.h.

Medical Technology - Bachelor of Science (38 s.h.) (Biology Major)

Required Major Courses:

BIO 1030	General Biology I	4 s.h.
BIO 1040	General Biology II	4 s.h.
BIO 2240	Basic Human Physiology	4 s.h.
BIO 2260	Microbiology	4 s.h.
BIO 3010	Genetics	4 s.h.
BIO 3170	Invertebrate Zoology (Parasitology)	4 s.h.
BIO 3280	Immunology	4 s.h.
BIO 3500	Medical Mycology	4 s.h.
BIO 4270	Clinical Bacteriology	4 s.h.
BIO 4950	Senior Seminar	2 s.h.
		38 s.h.

Required MTE Support Courses:

MTE 2010	Introduction to Health Care Professions	2 s.h.
MTE 3050	Clinical Hematology	4 s.h.
MTE 3070	Immunohematology & Serology	4 s.h.
MTE 3090	Hemostasis & Special Procedures	3 s.h.
MTE 3630	Clinical Chemistry I	3 s.h.
MTE 3650	Clinical Chemistry II	3 s.h.
MTE 3930	Clinical Internship I	4 s.h.
MTE 3940	Clinical Internship II*	4 s.h.
		27 s.h.

*MTIMPM students register for MTE 4510, 4520, 4530 for 2-10 s.h. each.



For Admissions Information

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For Program Information

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See Advisor/Admissions Office for current information.

Madonna University guarantees the right to equal educational opportunity without discrimination because of race, religion, sex, national origin, age, or disabilities. 10/01

Medical Technology - Bachelor of Science (38 s.h.) (Biology Major)

(continued)

Required Support Courses:

CHM 1110	General Chemistry I	4 s.h.
CHM 1120	General Chemistry II	4 s.h.
CHM 2210	Organic Chemistry I	4 s.h.
MTH 1210	Precalculus	5 s.h.
MTH 2350	Probability & Statistics	4 s.h.
PHY 2530	General Physics I	4 s.h.
PHY 2540	General Physics II	4 s.h.
		<u>29 s.h.</u>

Plan of Study - Associate's Degree

Medical Laboratory Technician Major - Associate Degree (29 s.h.)

Required Major Courses:

AHA 1010	Medical Terminology	2 s.h.
MTE 2010	Introduction to Health Care Professions	2 s.h.
MTE 3050	Clinical Hematology	4 s.h.
MTE 3070	Immunohematology & Serology	4 s.h.
MTE 3090	Hemostasis & Special Procedures	3 s.h.
MTE 3630	Clinical Chemistry I	3 s.h.
MTE 3650	Clinical Chemistry II	3 s.h.
MTE 3930	Clinical Internship I	4 s.h.
MTE 3940	Clinical Internship II	4 s.h.
		<u>29 s.h.</u>

Required Support Courses:

BIO 2240	Basic Human Physiology	4 s.h.
BIO 2260	Microbiology	4 s.h.
CHM 1110	General Chemistry I	4 s.h.
CHM 1610	Introduction to Life Chemistry	4 s.h.
MTH 1050	Intermediate Algebra	4 s.h.
		<u>20 s.h.</u>

Plan of Study - Certificate

Medical Technology - Post-Degree Certificate of Achievement (31 s.h.)

AHA 1010	Medical Terminology	2 s.h.
MTE 2010	Introduction to Health Care Professions	2 s.h.
MTE 3050	Clinical Hematology	4 s.h.
MTE 3070	Immunohematology & Serology	4 s.h.
MTE 3090	Hemostasis & Special Procedures	3 s.h.
MTE 3630	Clinical Chemistry I	3 s.h.
MTE 3650	Clinical Chemistry II	3 s.h.
MTE 3930	Clinical Internship I	4 s.h.
MTE 3940	Clinical Internship II	4 s.h.
MTE 4950	Senior Seminar	2 s.h.
		<u>31 s.h.</u>

Applicants for the certificate option must provide transcript evidence of completion of Biology, Chemistry and Mathematics courses required by the appropriate credentialing agency.

International applicants must provide an evaluation of foreign educational credentials prior to enrollment in the program (applications for this service are available in the Health Sciences office).

Career Options

Medical Technologists perform diagnostic medical procedures and function in laboratory medicine as supervisors, educators, managers or researchers.

The **Medical Laboratory Technician** functions in a variety of clinical areas under the supervision of the Medical Technologist. With additional clinical experience and a bachelor's degree, the Medical Laboratory Technician may apply for certification as a Medical Technologist.

Practice Settings

- Hospitals and Clinics
- Private Laboratories
- Research Laboratories
- Medical Research
- Pharmaceutical and other Industries
- Public Health Laboratories
- Health Maintenance Organizations
- Federal, State, and Municipal Health Organizations