

Medical Technology Graduate Programs Curriculum

Prerequisites and Curriculum for graduate programs

You must earn a grade of 'C' or better in each prerequisite course

Prerequisite Courses for Entry-Level BS/MS and Masters			
Course Distribution	3+2 Entry-Level BS/MS Program	Professional Masters	Advanced Masters
Biological or Chemical Sciences ¹	20	20	
Organic Chemistry	4	4	
College Algebra, Trigonometry, Precalculus, Calculus or Statistics	3*	3*	
English	6	6	
Electives ²	49		
Total	82	33**	***

¹Suggested biological or chemical sciences courses include but are not limited to General Biology, General Chemistry and Anatomy & Physiology. ²A course in Statistics, Physics, Bioinformatics or similar coursework is recommended. *Applicants to the Entry-Level BS/MS or the Masters programs should take Statistics. **Credits may be part of or in addition to an earned bachelors degree from an accredited institution. ***Applicants to the Advanced MS program must have a previously earned BS degree or Post-baccalaureate Certificate in Biotechnology, Cytotechnology, Medical Technology or other approved laboratory discipline.

NOTE: Graduates of associate degree MLT, CLT, BT or other similar programs may transfer technician coursework credits to satisfy the biological/chemical sciences and elective prerequisites.

Entry-Level BS/MS Program in Medical Technology

(full-time, 2 year baccalaureate and entry-level master's degree program for students entering with 82 specific prerequisite credits)

FALL SEMESTER	<i>Semester Credits</i>
LS 301 Molecular Biology	3
LS 303 Fundamental Clinical and Experimental Techniques	3
CH 304 Biochemistry	3
MT 312 Microbiology I	3
MT 323 Chemistry I	2
MT 331 Immunology	3
MT 341 Hematology I	3
Total for semester	20
SPRING SEMESTER	
LS 413 Pathology	2
MT 307 Clinical & Molecular Laboratory Techniques	4
MT 313 Microbiology II	3

MT 324	Chemistry II	3
MT 343	Hematology II	3
MT 352	Immunohematology	3
LS 440	Current Research in the Biosciences	3
Total for semester		21

Students who achieve a grade-point average of 3.0 or higher at the completion of two semesters of undergraduate coursework are admitted to the graduate phase of the program.

Graduate Phase

FALL SEMESTER

	Concentration Electives	6
LS 603	Research Design	3
LS 640	Methods in Bioscience Education	3
LS 801	Research Project I	1
LS 812	Practicum I	2
LS 813	Practicum II	2
Total for semester		17

SPRING SEMESTER

LS 610	Regulatory and Fiscal Issues in Laboratory Management	3
LS 613	Pathology	2
LS 802	Research Project II	2
LS 814	Practicum III	2
LS 815	Practicum IV	2
LS 816	Comprehensive Examination	1
	Concentration Elective	3
Total for semester		15

Credit Summary for 3+1 Baccalaureate Degree Option

	Credits Required for Admission	82
	Undergraduate Phase Credits	39
	Graduate Phase Credits	32
Total Credits for BS/MS in Bioscience Technologies – Medical Technology/Clinical Laboratory Sciences Option		153

Professional Master's Degree

(full-time, 12-month program for students who hold a bachelor's degree in any field other than laboratory sciences)

FALL SEMESTER

LS 501	Molecular Biology	3
LS 603	Research Design	3
CH 504	Biochemistry	3
MT 512	Microbiology I	3
MT 523	Chemistry I	2
MT 531	Immunology	3
MT 541	Hematology I	3
Total for semester		20

SPRING SEMESTER

LS 613	Pathology	2
LS 801	Research Project I	1
MT 507	Clinical and Molecular Laboratory Techniques	4
MT 513	Microbiology II	3
MT 524	Chemistry II	3
MT 543	Hematology II	3
MT 552	Immunoematology	3
Total for semester		19

SUMMER I & II

LS 610	Regulatory and Fiscal Issues in Laboratory Management	3
LS 802	Research Project II	2
LS 812	Practicum I	2
LS 813	Practicum II	2
LS 814	Practicum III	2
LS 815	Practicum IV	2
LS 816	Comprehensive Examination	1
Total for semester		14

**Total Credits for Professional Master's Degree
in Medical Technology** **53**

Advanced Master's Degree in Bioscience Technologies

(full-time or part-time program for students who hold a bachelor's degree and/or certification in Biotechnology, Cytogenetic Technology, Cytotechnology or Medical Technology or other approved laboratory discipline)

Full-Time Option

		<i>Semester Credits</i>
FALL SEMESTER		
LS 603	Research Design	3

LS 640	Methods in Bioscience Education	3
LS 801	Research Project I	1
LS 812	Practicum I	2
LS 813	Practicum II	2
CH 504	Biochemistry	3
	Concentration Elective	3
	Total for semester	<u>17</u>
SPRING SEMESTER		
LS 610	Regulatory and Fiscal Issues in Laboratory Management	3
LS 613	Pathology	2
LS 699	Independent Study (Teaching Internship)	2
LS 802	Research Project II	2
LS 814	Practicum III	2
LS 815	Practicum IV	2
	Concentration Elective	2-3
	Total for semester	<u>15 or 16</u>
	Total Credits for Advanced MS in Bioscience Technologies	32 or 33

Curriculum – Part-Time Option (Suggested)

		<i>Semester Credits</i>
FALL SEMESTER		
LS 603	Research Design	3
LS 812	Practicum I	2
CH 504	Biochemistry	3
	Total for semester	<u>8</u>
SPRING SEMESTER		
LS 610	Regulatory and Fiscal Issues in Laboratory Management	3
LS 613	Pathology	2
LS 813	Practicum II	2
	Total for semester	<u>7</u>
SUMMER I and/or II		
LS 814	Practicum III	2
	Concentration Elective	3
	Total for semester	<u>5</u>
FALL SEMESTER		
LS 640	Methods in Bioscience Education	3
LS 699	Independent Study (Teaching Internship)	2
LS 801	Research Project I	1
LS 815	Practicum IV	2
	Total for semester	<u>8</u>
SPRING SEMESTER		
LS 802	Research Project II	2
	Concentration Elective(s)	2-3
	Total for semester	<u>4 or 5</u>
	Total Credits for Advanced MS in Bioscience Technologies	32 or 33