

The University Of Toledo

Council:

Office of the Provost:

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Program Requirement Revision Form

Administrative Use Only (rev. 9/2011)						
Code:	CM					
Date Received:		/	/	(dd/mm/yyyy)		
Date Effective:		/	/	(dd/mm/yyyy)		

Please list the proposed prog	gram structure.						
College: Natural Sciences		Dept: Biological Sciences					
Contact Person: John Plenefisch		Phone: 419 530-1547					
Email: john.plenefisch@utol	edo.edu						
Program Name: BS in Medic	cal Technology						
Program Level: Gradua	te 🛭 Undergradua	te	:				
			*				
	CHANGES AND REA	SONS FOR CHANGES					
To bring entire clinical year under affiliation with UTMC and ProMedica, and obtain NAACLS accreditation for							
the program. See attached docu	ments for details of the	changes.					
APPROVAL:							
	3	Signature	Date				
Department Curriculum Authority:	JeluVV	4	2/6/12				
Department Chairperson:	selas (V	9 ~	2-4-12				
College Curriculum Authority:	- Cilly 8	Luc	2-28-12				
College Dean:	Mristine	a. Habrecht	3/8/12				
After college approval, submit the courses; for graduate-level cours							
	S	Signature	Date				
FS Acad Programs or Graduate		¥.					

Bachelor of Science in Medical Technology (BSMT degree program).program revisions.

Current requirements in place for the Bachelor of Science in Medical Technology*

This program, administered by the Department of Biology, prepares students for certification as medical technologists. To receive the BSMT degree students must:

1) Complete three years of pre-clinical college work of 94 semester hours with an accumulated average of no less than 2.0.

These 94 hours must include all the basic requirements listed under "Degree Requirements" for the College [of Arts and Sciences] in this catalog.

They must also include all other science courses listed as academic prerequisites for admission to a hospital school of medical technology as set by the National Accrediting Agency for Clinical Laboratory Sciences and the American Society of Clinical Pathologists.

a) Chemistry. A minimum of 16 semester units is required. Organic chemistry or biological chemistry must be included. Quantitative analysis is also recommended.

[taking the following set of UT courses meets this requirement:

CHEM 1230/1280

CHEM 1240/1290

CHEM 2410/2460

CHEM 2420]

b) Biological Sciences. A minimum of 16 semester units is required. Microbiology and immunology must be included in the curriculum. Genetics, physiology and anatomy are recommended.

[taking the following set of UT courses meets this requirement:

BIOL 2150/2160

BIOL 2170/2180

BIOL 3010

BIOL 3030 (required pre-requisite for physiology, microbiology and immunology courses)

BIOL 3070

BIOL 3510

BIOL 4030

BIOL 4040

BIOL 4050]

c) Mathematics. One course in mathematics is required. Minimum requirements are met by courses recognized as prerequisites for admission to physics courses. A course in statistics is recommended.

[taking the following set of UT courses meets this requirement:

MATH 1750

MATH 1760]

- 2) Complete a 12-month course in a NAACLS-accredited hospital school of medical technology with a minimum average of 2.0. [Application and admission decisions to the clinical internship year are made by each individual hospital schools.]
- 3) File application with the Dean of the college for permission to apply hospital school work toward the degree. Upon successful completion of the clinical program, the hospital school files an official transcript of credits earned, for which 30 hours of credit will apply toward the degree of Bachelor of Science in Medical Technology.

¹The content of chemistry and biological sciences courses must be acceptable toward a major in those fields of study. Survey courses do not qualify as fulfillment of chemistry and biological sciences prerequisites.

*abstracted from the 1997 University of Toledo Catalog.

Proposed changes to program:

1) Complete three years of pre-clinical college work of 90 semester hours with an accumulated GPA of no less than 2.5 overall.

These 90 hours must include all the basic requirements listed under "Degree Requirements" for the University of Toledo in this catalog, and the following suite of preclinical science courses must be passed with a grade of C or better:

18 credits of Chemistry courses acceptable towards the major

CHEM 1230/1280

CHEM 1240/1290

CHEM 2410/2460

CHEM 2420/2470

27 credits of Biology acceptable towards the major

BIOL 2150/2160

BIOL 2170/2180

BIOL 3010

BIOL 3030

BIOL 3070

BIOL 4030

BIOL 4040

BIOL 4040

BIOL 4060

4 Credits of Human Anatomy

KINE 2510

KINE 2520

6 credits of Math and Stats courses

MATH 1320

MATH 2600

10 credits of Physics

PHYS 2070

PHYS 2080

2) Students apply for acceptance into the clinical 4th year of the program during the fall of their Junior year. This program will be housed on the UTMC campus with externship sites at the UTMC and ProMedica hospital system. Student accepted into the program must pass all the following 48 credits of clinical courses**:

MEDT 4010 Clinical Lab Techniques

MEDT 4020 Clinical Hematology

MEDT 4030 Clinical Urinalysis, Body fluids and Hemostasis

MEDT 4040 Clinical Chemistry

MEDT 4050 Clinical Microbiology
MEDT 4060 Clinical Immunology
MEDT 4070 Clinical Parasitology
MEDT 4080 Clinical Immunohematology
MEDT 4090 Clinical Mycology
MEDT 4100 Clinical Virology
MEDT 4500 Clinical Research and Clinical Correlations

MEDT 4951 Clinical Externship: Microbiology MEDT 4952 Clinical Externship: Chemistry MEDT 4953 Clinical Externship: Hematology MEDT 4954 Clinical Externship: Immunohematology

MEDT 4950 Clinical Externship: Management

- ** Courses to be submitted as NEW course proposals.
- 3) Upon successful completion of the clinical program, with a minimum GPA of 2.0, the student will be awarded the degree of Bachelor of Science in Medical Technology.

Significance of the changes:

- 1) Current preclinical requirements effectively require BSMT students to complete a minimum of 107 credits. The result is most students will have great difficulty completing the pre-clinical coursework in 3 years, and making the University of Toledo's BSMT degree non-competitive with 3 preclinical years +1 clinical year medical technology programs offered at other Ohio and national universities. Thus we propose 1) a reduction in required pre-clinical hours from minimum 94 to 90 and more significantly, 2) course requirements outside the program are reduced to the University requirements, without additional college specific requirements. These changes will result in students being able to effectively complete the preclinical program in 3 years.
- 2) Requiring a specific science and math courses to be passed with a C or better in all courses. Taking and passing this set of courses meets the NAACLS standards for admission to hospital based schools, clarifies for the student the basic science courses that are considered in the major and allows the major to be better programmed into Banner. [The addition of the C or better requirement allows students to better determine whether they are competitive for acceptance into entry into clinical year.] The requirement for an overall pre-clinical minimum GPA of 2.5 matches the proposed admission minimum of 2.5 for the clinical year. This is consistent with the GPA requirements for most other NAACLS accredited programs.
- 2) Currently UT is not affiliated with any NAACLS-accredited hospital school of medical technology, which makes the transition, application and acceptance to the hospital based clinical year problematic. While adhering to NAACLS accreditation standards, individual programs set their own application and admission procedures, and these vary from school to school, as well as giving preference to equally qualified candidates from the affiliated university based programs. UT, in affiliation with the ProMedica system and UTMC will provide the NAACLS-accredited clinical course work of the fourth year. [These new UT courses will be submitted for curricular approval as part of a package including the program modification. In addition, both the new courses and the modified program are being submitted to NAACLS for accreditation.] While pre-clinical students will still need

to apply for entry to the clinical year, the path from the preclinical to clinical portions of the program will be straightforward and unambiguous for the student.

- 3) The requirement that the student petition the Dean of the College for permission to apply hospital school work toward the degree will be dropped given that the course work in the fourth year is clearly defined UT coursework.
- 4) For this program, the College of Natural Sciences requirement of two semesters of calculus for a Bachelor of Science degree is waived.

Attached is a copy the Sample Curriculum for the revised BSMT program.

1 St T-11		1 st year Spring	
1 st year Fall	(4)		(4)
BIOL 2150 Fundamental of Life Science I	(4)	BIOL 2170 Fundamental of Life Science II	(4)
BIOL 2160 Fundamental of Life Science I lab	(1)	BIOL 2180 Fundamental of Life Science II lab	(1)
CHEM 1230 General Chemistry I	(4)	CHEM 1240 General Chemistry II	(4)
CHEM 1280 General Chemistry I Lab	(1)	CHEM 1250 General Chemistry II Lab	(1)
ENGL 1110 Composition I	(3)	ENGL 1130-50 Composition II	(3)
ARS 1000 Orientation	(1)	Core Elective (Humanities)	(3)
TOTAL	14	TOTAL	16
2 nd year Fall		2 nd year Spring	
BIOL 3030 Cell Biology	(3)	BIOL 3010 Molecular Genetics	(3)
CHEM 2410 Organic Chemistry I	(3)	CHEM 2420 Organic Chemistry II	(3)
CHEM 2460 Organic Chemistry I Lab	(1)	CHEM 2470 Organic Chemistry II Lab	(1)
MATH 1320 College Algebra	(3)	Core Elective (Humanities)	(3)
Core Elective (Social Science)	(3)	KINE 2510 Human Anatomy	(3)
MATH 2600 (Stats)	(3)	KINE 2520 Human Anatomy Lab	(1)
	(-)		(-)
TOTAL	16	TOTAL	14
3 rd year Fall		3 rd year Spring	
BIOL 4050 Immunology	(3)	BIOL 3070 Human Physiology	(3)
BIOL 4060 Immunology Lab	(1)	Core Elective (Multicultural)	(3)
Core Elective (Social Science)	(3)	PHYS 2080 General Physics II	
Core Elective (Multicultural)		BIOL 4030 Microbiology	(5)
PHYS 2070 General Physics I	(3)	BIOL 4030 Microbiology BIOL 4040 Microbiology Lab	(3)
PH 15 2070 General Physics I	(5)	BIOL 4040 Microbiology Lab	(1)
TOTAL	15	TOTAL	15
3 rd year Summer			
MEDT 4010 Clinical Lab Techniques	(2)		
MEDT 4020 Clinical Hematology	(5)		
MEDT 4030 Clinical Urinalysis, Body fluids	(3)		
and Hemostasis	(3)		
and Hemostasis	(3)		
TOTAL	10		
4 th year Fall		4 th year Spring	
MEDT 4040 Clinical Chemistry	(5)	MEDT 4080 Clinical Immunohematology	(5)
MEDT 4050 Clinical Microbiology	(5)	MEDT 4090 Clinical Mycology	(2)
MEDT 4060 Clinical Immunology	(2)	MEDT 4100 Clinical Virology	(2)
MEDT 4000 Clinical Himuliology MEDT 4070 Clinical Parasitology	(2)	MEDT 4700 Clinical Vitology MEDT 4951 Clinical Externship: Microbiology	
This i to to chinear i arasitology	(2)	MEDT 4500 Clinical Research and Clinical	(4)
		Correlations	(2)
		Correlations	(3)
TOTAL	14	TOTAL	16
4th year Summer	_ -		
MEDT 4952 Clinical Externship: Chemistry	(4)		
MEDT 4952 Clinical Externship: Chemistry MEDT 4953 Clinical Externship: Hematology			
MEDT 4933 Chinical Externship: Hematology MEDT 4954 Clinical Externship:	(3)		
-	(2)		
Immunohematology	(3)		
MEDT 4950 Clinical Externship: Management	(1)		
TOTAL	11		
10111	11		

Total credits: 141: pre-clincal: 90, clinical: 51