

**Bachelor of Science
Program in
Medical Technology**

Name of the Curriculum : Bachelor of Science Program in Medical Technology
 Name of the Degree : (Full) Bachelor of Science (Medical Technology)
 : (Abbr.) B.S. (Medical Technology)

Total credit requirement at least 143 credits

Course Structure

(1) General Education		30	credits
– Language and Communication		12	credits
– Social Sciences and Humanities		9	credits
– Sciences and Mathematics		6	credits
– Learning Through Activities		3	credits
 (2) Field of Specialization	at least	107	credits
– Core Course		45	credits
– Major	at least	62	credits
Required Courses		59	credits
Major electives	at least	3	credits
– Minor	None		
(3) Free electives	at least	6	credits

Courses credits

General Education 30

Language and Communications 12

001101	ENGL	101	Fundamental English 1	3
001102	ENGL	102	Fundamental English 2	3
001201	ENGL	201	Critical Reading and Effective Writing	3
001202	ENGL	202	English in Professional Contexts	3

Social Sciences and Humanities 9

Select from

009103	LS	103	Information Literacy and Information Presentation	3
011100	PHIL	100	Man and Philosophy	3
011101	PHIL	101	Meaning of Life	3
011251	PHIL	251	Logic	3

011257	PHIL	257	Ethics	3
012173		173	Descriptive Study of Religion	3
013110		110	Psychology and Daily Life	3
050100		100	Usage of the Thai Language	3
050103		103	Thai Society and Culture	3
050111		111	Man and Quest for Knowledge	3
050121		121	Thai People in the ASEAN Community	3
109100		100	Man and Art	3
109114		114	Arts in Everyday Life	3
109115		115	Life and Aesthetics	3
154104		104	Environmental Conservation	3
154106		106	Disaster in Modern World	3
176100		100	Law and Modern World	3
701103		103	General Accounting	3
751100		100	Economics for Everyday Life	3
851100		100	Introduction to Communication	3

Sciences and Mathematics

6

204100	CS	100	Information Technology and Modern Life	3
And select from				3
201114		114	Environmental Science in Today's World	3
203100		100	Chemistry in Everyday Life	3
206109		109	Mathematics in Today's World	3
207109		109	Life and the Universe	3
211100		100	Eating Well: Better Living and Disease Prevention	3
218100		100	The Science of Gemstone and Jewelry	3
359203		203	Horticultural Wisdom	3
362211		211	Principles of Conservation	3
461100		100	Herbs for Health and Beauty	3
461170		170	Cosmetics in Everyday Life	3
462130		130	Medications in Everyday Life	3
510100		100	Wellness	3
603200		200	Packaging in Daily Life	3
951100		100	Modern Life and Animation	3

Learning Through Activities **3**

516101	IT	101	Learning through Activities 1	1
516102	IT	102	Learning through Activities 2	1
And select from				1
057121	GENER	121	Football for Life and Exercise	1
057122	GENER	122	Swimming for Life and Exercise	1
057123	GENER	123	Volleyball for Life and Exercise	1
057125	GENER	125	Rhythmic Activities for Life and Exercise	1
057126	GENER	126	Basketball for Life and Exercise	1
057127	GENER	127	Badminton for Life and Exercise	1
057128	GENER	128	Tennis for Life and Exercise	1
057129	GENER	129	Table Tennis for Life and Exercise	1
057130	GENER	130	Golf for Life and Exercise	1

Field of Specialization **at least** **107**

Core Course				45
202184		184	Basic Biology for the Health Sciences 1	4
203131		131	Basic Quantitative Chemical Analysis for Medical Technology Students	1
203132		132	Quantitative Chemical Analysis Laboratory for Medical Technology Students	1
203151		151	General Chemistry for the Health Sciences	3
203152		152	Organic Chemistry for the Health Sciences	3
203157		157	General Chemistry Laboratory for the Health Sciences	1
203158		158	Organic Chemistry Laboratory for the Health Sciences	1
206101		101	Calculus for Health Sciences	3
207131		131	Physics for Associated Medical Sciences Students 1	2
207171		171	Physics Laboratory for Associated Medical Sciences Students 1	1
208263		263	Elementary Statistics	3
301231		231	Anatomy for Medical Technology Students	3
303210		210	General Biochemistry	3
317331		331	Medical Parasitology for Associated Medical Science Students	4
320332		332	Pharmacology for Associated Medical Science Students	2
321231		231	Physiology for Associated Medical Sciences Students	4
508203		203	General and Medical Microbiology	3

510201	201	Human Genetics	1
510202	202	Clinical Laboratory Instrumentation	2

Major at least 62

Required Courses 59

318322	PATH	322	Pathology for Associated Medical Science Students	2
501201	CMS	201	Basic Hematology	1
501202	CMS	202	Laboratory Practices in Basic Hematology	1
501301	CMS	301	Hematology 1	1
501302	CMS	302	Laboratory Practices in Hematology 1	2
501305	CMS	305	Hematology 2	1
501306	CMS	306	Laboratory Practices in Hematology 2	2
502313	CMS	313	Medical Microscopy	1
502314	CMS	314	Laboratory Practices in Medical Microscopy	1
503402	ACMS	402	Laboratory Practice in Clinical Microscopy	1
504202	CCH	202	Clinical Chemistry 1	3
504302	CCH	302	Clinical Chemistry 2	3
504305	CCH	305	Clinical Chemistry 3	2
505402	ACCH	402	Laboratory Practice in Clinical Chemistry	1
506202	IMM	202	Basic Immunology	3
506303	IMM	303	Immunodiagnostic and Immunological Techniques	3
507402	AIMM	402	Laboratory Practice in Clinical Immunology	1
508303	CMB	303	Clinical Microbiology 1	3
508304	CMB	304	Clinical Microbiology 2	4
509402	ACMB	402	Laboratory Practice in Clinical Microbiology	1
510306	AMS	306	Clinical Laboratory Science Research Methodology	1
510408	AMS	408	Community Medical Technology	2
510414	AMS	414	Clinical Laboratory Analysis of Toxic Substances and Principle of Forensic Sciences Investigation	1
510415	AMS	415	Molecular Biology for Clinical Laboratory	1
510416	AMS	416	Clinical Correlation Case Study	1
510417	AMS	417	Laboratory Management	1
510418	AMS	418	Professional Law and Ethics	1
510439	AMS	439	Health Science Research	2
510441	AMS	441	Hospital Laboratory Practice	4
511439	AMS	439	Seminar Journal Club	1
512303	AMS	303	Transfusion Science 1	3

512304	AMS	304	Transfusion Science 2	3
512402	AMS	402	Laboratory Practice in Transfusion Science	1

Major Electives			at least	3
------------------------	--	--	-----------------	----------

Select from

502211		211	Photography for Medical Technology Students	2
502311		311	Human Cytogenetics	2
508207		207	Applied Microbiology for Health Sciences Students	3
510410		410	Laboratory Quality Problem Solving Practice	1
510411		411	Clinical Laboratory Assessment of Nutritional Status and Counselling	2
512311		311	Blood Donor Management	2
512312		312	Transfusion Reaction Investigation and Case Studies	2

Free Electives			at least	6
-----------------------	--	--	-----------------	----------

Study Plan

First Year

First Semester				credits
001101	ENGL	101	Listening and Speaking in English	3
202184	BIO	184	Basic Biology for the Health Sciences 1	4
203151	CHEM	151	General Chemistry for the Health Sciences	3
203157	CHEM	157	General Chemistry Laboratory for the Health Science	1
206101	MATH	101	Calculus for Health Sciences 1	3
207131	PHYS	131	Physics for Associated Medical Sciences Students 1	2
207171	PHYS	171	Physics Laboratory for Associated Medical Sciences Students	1
Social Sciences and Humanities				3
Total				20

Second Semester				credits
001102	ENGL	102	Reading and Writing in English	3
203131		131	Basic Quantitative Chemical Analysis for Medical Technology Students	1
203132		132	Quantitative Chemical Analysis Laboratory for Medical Technology Students	1
203152	CHEM	152	Organic Chemistry for the Health Sciences	3
203158	CHEM	158	Organic Chemistry Laboratory for the Health Sciences	1
204100	CS	100	Information Technology and Modern Life	3
208263	STAT	263	Elementary Statistics	3
Social Sciences and Humanities				3
Sciences and Mathematics				3
Total				21

Second Year

First Semester				credits
001201	ENGL	201	Critical Reading and Effective Writing	3
303210	BCHM	210	General Biochemistry	3
508203	CMB	203	General and Medical Microbiology	3
510201	AMS	201	Human Genetics	1
510202	AMS	202	Clinical Laboratory Instrumentation	2
Social Sciences and Humanities				3
Free electives				6
Learning Through Activities				1
Total				22

Second Semester				credits
001226	ENGL	226	English in Health Sciences Contexts	3
301231	ANAT	231	Anatomy for Medical Technology Students	3
318322	PATH	322	Pathology for Associated Medical Science Students	2
321231	PHSO	231	Physiology for Associated Medical Science Students	4
501201	CMS	201	Basic Hematology	1
501202	CMS	202	Laboratory Practices in Basic Hematology	1
504202	CCH	202	Clinical Chemistry 1	3
506202	IMM	202	Basic Immunology	3
Total				20

Third Year

First Semester				credits
320332	PHCO	332	Pharmacology for Associated Medical Science Students	2
501301	CMS	301	Hematology 1	1
501302	CMS	302	Laboratory Practices in Hematology 1	2
504302	CCH	302	Clinical Chemistry 2	3
506303	IMM	303	Immunodiagnostic and Immunological Techniques	3
508303	CMB	303	Clinical Microbiology 1	3
512303	TSC	303	Transfusion Science 1	3
516101	IT	101	Learning Through Activities 1	1
Total				18

credits

Second Semester

317331	PARA	331	Medical Parasitology for Associated Medical Science Students	4
501305	CMS	305	Hematology 2	1
501306	CMS	306	Laboratory Practices in Hematology 2	2
502313	CMS	313	Medical Microscopy	1
502314	CMS	314	Laboratory Practices in Medical Microscopy	1
504305	CCH	305	Clinical Chemistry 3	2
508304	CMB	304	Clinical Microbiology 2	4
510306	AMS	306	Clinical Laboratory Science Research Methodology	1
512304	TSC	304	Transfusion Science 2	3
Total				19

Fourth Year

First Semester				credits
503402	ACMS	402	Laboratory Practice in Clinical Microscopy	1
505402	ACCH	402	Laboratory Practice in Clinical Chemistry	1
507402	AIMM	402	Laboratory Practice in Clinical Immunology	1
509402	ACMB	402	Laboratory Practice in Clinical Microbiology	1
510414	AMS	414	Clinical Laboratory Analysis of Toxic Substances and Principle of Forensic Science Investigation	1
510415	AMS	415	Molecular Biology for Clinical Laboratory	1
510416	AMS	416	Clinical Correlation Case Study	1
510417	AMS	417	Laboratory Management	1
510418	AMS	418	Professional Law and Ethics	1
512402	TSC	402	Laboratory Practice in Transfusion Science	1
Free Electives				3
Total				13

Second Semester				credits
510408	AMS	408	Community Laboratory Medicine	2
510439	AMS	439	Clinical Laboratory Science Research	2
510441	AMS	441	Special Medical Technology Laboratory Practice	4
511439	SEM	439	Seminar Journal Club	1
516102	IT	102	Learning Through Activities	1
Total				10