

# MASTER OF SCIENCE PROGRAM IN MEDICAL TECHNOLOGY INTERNATIONAL PROGRAM/REVISED PROGRAM 2561 B.E.

## PROGRAM

(Thai)                    วิทยาศาสตร์มหาบัณฑิต สาขาวิชาเทคนิคการแพทย์ (หลักสูตรนานาชาติ)  
(English)                Master of Science Program in Medical Technology (International Program)

## DEGREE

- (Thai)
  - Full title                : วิทยาศาสตร์มหาบัณฑิต (เทคนิคการแพทย์)
  - Abbrev.                : วท.ม. (เทคนิคการแพทย์)
- (English)
  - Full title                : Master of Science (Medical Technology)
  - Abbrev.                : M.S. (Medical Technology)

## DEGREE REQUIREMENTS

Type 2 (Plan A type A2): 36 Credits

## STUDY DURATION

Type 2 (Plan A type A2): 2 Years (4 Semesters), a maximum of 5 years

## PROGRAM STRUCTURE

<b>Degree requirements</b>	<b>a minimum of</b>	<b>36</b>	<b>credits</b>
<b>A. Course Work</b>	<b>a minimum of</b>	<b>24</b>	<b>credits</b>
1. Graduate courses	a minimum of	24	credits
1.1 Field of concentration courses	a minimum of	22	credits
<b>1.1.1 Required courses</b>			
510711 Laboratory Management and Quality Control		1	credit
510713 Research Methodology and Biostatistics		2	credits
510716 Cell and Molecular Biology in Medicine		4	credits
510719 Biomedical Sciences		2	credits
510720 Techniques for Biomedical Science Research		3	credits
510721 Technology in Health Informatics		2	credits
<b>1.1.2 Track's required courses (choose only 1 track)</b>		<b>8</b>	<b>credits</b>
<b><u>Clinical Microscopy Track</u></b>			
510701 Advanced Hematology and Clinical Microscopy		4	credits
510702 Current Topics in Hematology and Clinical Microscopy		2	credits
510791 Seminar in Clinical Hematology and Clinical Microscopy 1		1	credit
510792 Seminar in Clinical Hematology and Clinical Microscopy 2		1	credit

### Clinical Chemistry Track

504701 Advanced Clinical Chemistry	4	credits
504732 Molecular Biochemistry of Diseases	2	credits
504791 Seminar in Clinical Chemistry 1	1	credit
504792 Seminar in Clinical Chemistry 2	1	credit

### Clinical Immunology Track

506701 Advanced Immunology	4	credits
506792 Seminar in Clinical Immunology	2	credits
506793 Seminar in Immunology 1	1	credit
506794 Seminar in Immunology 2	1	credit

### Clinical Microbiology Track

508701 Advanced Clinical Microbiology	4	credits
508732 Special Topics in Clinical Microbiology	2	credits
508791 Seminar in Clinical Microbiology 1	1	credit
508792 Seminar in Clinical Microbiology 2	1	credit

### Transfusion Science Track

512701 Advanced Transfusion Science	4	credits
512702 Red Cell Immunology	2	credits
512791 Seminar in Transfusion Science 1	1	credit
512792 Seminar in Transfusion Science 2	1	credit

**1.2 Elective courses, a minimum of 2 credits**

#### Select from the following courses

501741 Case Conference in Hematology and Clinical Microscopy	2	credits
501797 Special Problem in Hematology and Clinical Microscopy	3	credits
510718 Bioengineering for Health Sciences	2	credits
510793 Selected Topics in Biomedical Sciences	2	credits
512704 Safe Blood Component Preparation and Management	2	credits
512705 Case Conference in Transfusion Science	2	credits
512706 Quality Management in Transfusion Science	2	credits
512733 Transplantation Immunology	2	credits
512735 Platelet Immunobiology	2	credits

Or any other new graduate courses contained within the Faculty of Associated Medical Sciences after having received consent from the Program Committee. This also includes as other graduate courses in the field of health sciences or sciences and technology that have received similar approval.

2. Advanced undergraduate courses -None-

### **B. Thesis**

510799 Master's Thesis	12	credits
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### **C. Non-credit course**

1. Graduate School's requirement - foreign language-
2. Program's requirement -None-

#### D. Academic activities

1. The whole or part of a master's thesis must be published in a peer reviewed international journal or published in English listed in a TCI Tier 1 journal. At least one original article is required, and student must be a first-author with the affiliation being "Master of Science in Medical Technology, Faculty of Associated Medical Sciences, Chiang Mai University"

2. Students have to report their thesis progress every semester, using the graduate school format. It will be submitted for approval by the Chairman of the Faculty Graduate Education Executive Committee prior to approval from the graduate school.

## STUDY PLAN

### • Clinical Microscopy Track

1 <sup>st</sup> year					
Semester 1		Credits	Semester 2		Credits
510713	Research Methodology and Biostatistics	2	510711	Laboratory Management and Quality Control	1
510716	Cell and Molecular Biology in Medicine	4	510720	Techniques for Biomedical Science Research	3
510719	Biomedical Sciences	2	501701	Advanced Hematology and Clinical Microscopy	4
510721	Technology in Health Informatics	2	501702	Current Topics in Hematology and Clinical Microscopy	2
	Pass English exam	0	xxxxxx	Elective courses	2
				Thesis proposal exam	
<b>Total</b>		<b>10</b>	<b>Total</b>		<b>12</b>

2 <sup>nd</sup> year					
Semester 1		Credits	Semester 2		Credits
510799	Master's Thesis	6	510799	Master's Thesis	6
510791	Seminar in Clinical Hematology and Clinical Microscopy 1	1	510792	Seminar in Clinical Hematology and Clinical Microscopy 2	1
<b>Total</b>		<b>7</b>	<b>Total</b>		<b>7</b>

**TOTAL 36 CREDITS**

• Clinical Chemistry Track

1 <sup>st</sup> year					
Semester 1		Credits	Semester 2		Credits
510713	Research Methodology and Biostatistics	2	510711	Laboratory Management and Quality Control	1
510716	Cell and Molecular Biology in Medicine	4	510720	Techniques for Biomedical Science Research	3
510719	Biomedical Sciences	2	504701	Advanced Clinical Chemistry	4
510721	Technology in Health Info	2	504732	Molecular Biochemistry of Diseases	2
	Pass English exam	0	xxxxxx	Elective courses	2
				Thesis proposal exam	
<b>Total</b>		<b>10</b>	<b>Total</b>		<b>12</b>

2 <sup>nd</sup> year					
Semester 1		Credits	Semester 2		Credits
510799	Master's Thesis	6	510799	Master's Thesis	6
504791	Seminar in Clinical Chem 1	1	504792	Seminar in Clinical Chem 2	1
<b>Total</b>		<b>7</b>	<b>Total</b>		<b>7</b>

**TOTAL 36 CREDITS**

• Clinical Immunology Track

1 <sup>st</sup> year					
Semester 1		Credits	Semester 2		Credits
510713	Research Methodology and Biostatistics	2	510711	Laboratory Management and Quality Control	1
510716	Cell and Molecular Biology in Medicine	4	510720	Techniques for Biomedical Science Research	3
510719	Biomedical Sciences	2	506701	Advanced Immunology	4
510721	Technology in Health Info	2	506792	Seminar in Clinical Immunology	2
	Pass English exam	0	xxxxxx	Elective courses	2
				Thesis proposal exam	
<b>Total</b>		<b>10</b>	<b>Total</b>		<b>12</b>

2 <sup>nd</sup> year					
Semester 1		Credits	Semester 2		Credits
510799	Master's Thesis	6	510799	Master's Thesis	6
506793	Seminar in Immunology 1	1	506794	Seminar in Immunology 2	1
<b>Total</b>		<b>7</b>	<b>Total</b>		<b>7</b>

**TOTAL 36 CREDITS**

• Clinical Microbiology Track

1 <sup>st</sup> year					
Semester 1		Credits	Semester 2		Credits
510713	Research Methodology and Biostatistics	2	510711	Laboratory Management and Quality Control	1
510716	Cell and Molecular Biology in Medicine	4	510720	Techniques for Biomedical Science Research	3
510719	Biomedical Sciences	2	508701	Advanced Clinical Microbiology	4
510721	Technology in Health Info	2	508732	Special Topics in Clinical Microbiology	2
	Pass English exam	0	xxxxxx	Elective courses	2
				Thesis proposal exam	
<b>Total</b>		<b>10</b>	<b>Total</b>		<b>12</b>

2 <sup>nd</sup> year					
Semester 1		Credits	Semester 2		Credits
510799	Master's Thesis	6	510799	Master's Thesis	6
508791	Seminar in Clinical Micro 1	1	508792	Seminar in Clinical Micro 2	1
<b>Total</b>		<b>7</b>	<b>Total</b>		<b>7</b>

**TOTAL 36 CREDITS**

• Clinical Transfusion Science Track

1 <sup>st</sup> year					
Semester 1		Credits	Semester 2		Credits
510713	Research Methodology and Biostatistics	2	510711	Laboratory Management and Quality Control	1
510716	Cell and Molecular Biology in Medicine	4	510720	Techniques for Biomedical Science Research	3
510719	Biomedical Sciences	2	512701	Advanced Transfusion	4
510721	Technology in Health Info	2	512702	Red Cell Immunology	2
	Pass English exam	0	xxxxxx	Elective courses	2
				Thesis proposal exam	
<b>Total</b>		<b>10</b>	<b>Total</b>		<b>12</b>

2 <sup>nd</sup> year					
Semester 1		Credits	Semester 2		Credits
510799	Master's Thesis	6	510799	Master's Thesis	6
512791	Seminar in Transfusion 1	1	512792	Seminar in Transfusion 2	1
<b>Total</b>		<b>7</b>	<b>Total</b>		<b>7</b>

**TOTAL 36 CREDITS**