

Curriculum Structure of IMST

Required Courses	M.S. Program	
	Biomedical Engineering Section	
	*Introduction to Medical Science and Technology *Seminar(I, II, III, IV)	
	Intelligent of Long-Term Care Section	
	*Special Topics in Technology for Long-Term Care Special Topics in Intelligent Long-Term *Practice in Intelligent Long-Term Care Services *Practice in Intelligent Long-term Care Services * Practicum in Intelligent Long-term Care *Care Seminar in Long-Term Care (I)(II)	
	PhD Program	
*Advanced Biomedical Technology *Seminar(I, II, III, IV)		

Compulsory Elective Courses (choose two)	MA Program	
	Biomedical Engineering Section	
	*Cell Molecular Biology *Medical Sensor *Biological Modeling *Pathology *Biomechanics	*Biomedical Optical Imaging Techniques *Microelectromechanical System for Medical Applications *Brain-Computer Interface: Principles and Practice

Elective Courses		
Biomedical Detecting Field	<ul style="list-style-type: none"> •Proteomics •Mass Spectrometry •Toxicology •Practices in Biochip Technology •Lasers for Medical Applications •Experimental Optoelectronics •Biomedical Optical Imaging Techniques •Preclinical Model of Medicine Development •Introduction to Biological Mass Spectrometry •Advanced Techniques of Magnetic Resonance Imaging •Design and Fabrication of Intelligent Electrochemical Sensor •Independent Studies in Nanomaterials(I) 、(II) 	<ul style="list-style-type: none"> •Biomedical Assay •Introduction to Emergency Medicine •Introduction to Biophotonics • Biomedical Sensors and Signal Processing • Electrochemical Sensor • Resonance Imaging • Principles and Applications of Biomedical • Magnetic Resonance Spectroscopy • Instrumental Analysis on Biochemistry • Independent Studies in Clinical Toxicology(I) 、(II) • Independent Studies in Micro/Nano Sensing Technology(I) 、(II)
Biomedical Material Field	<ul style="list-style-type: none"> • Applied Physiology • Protein Engineering • Micro and Nano Materials in Biomedicine • Introduction to Tissue Engineering • Transdermal Drug Delivery System • Special Topics in Immunology • Design and Development of Biomedical Device • Biomaterials 	<ul style="list-style-type: none"> • Photocatalyst Materials • Fundamental Concepts and Practice of Bone Materials • Chemical Engineering Materials • Independent Studies in Drug Delivery(I) 、(II) • Independent Studies in Biophysics(I) 、(II) • Independent Studies in Functional Materials (I) 、(II)
Biomedical Calculation Simulation Field	<ul style="list-style-type: none"> • Bioinformatics • Biometrics/Molecular Modeling • Structural Biology • Biological Database 	<ul style="list-style-type: none"> • Medical Computer System and Analysis • Computational Biology • Independent Studies in Computational Biology (I) 、(II)

<p>Medical Instrument Development Field</p>	<ul style="list-style-type: none"> • Introduction to Internal Medicine • Special Topics on Chinese Western Medicine • Sports Medicine • Application and Innovation for Assistive Technology • Physical Medicine and Rehabilitation • Overview of Clinical Medicine • Introduction to Biomedical Engineering • Signal Processing and Data Mining in Electroencephalogram 	<ul style="list-style-type: none"> • Medical Imaging Systems • Biomedical Signal Processing • Medical Electronics • 3D Printing Applications and Practices • Special Topics in Medical Laws and Medical Ethics • Independent Studies in Instrumentation System(I) 、(II) • Independent Studies in Neuroergonomics (I) 、(II)
<p>Intelligent of Long-Term Care field</p>	<ul style="list-style-type: none"> •The Application of Hyperbaric Oxygen Therapy • Artificial Intelligence in Clinical Healthcare • Medical Ethics and Clinical Trials • The Artificial Intelligence Application for Sleep and Hearing Loss in the Elderly • The Elderly’s Counseling Theories and Skills • Special Topics in Geriatric Dentistry and Oral Care of elderly • Multiple Complementary Therapies for the Elderly•Long-Term Care of Aging and Disabled •Seminar in Long-Term Care (III) 、(IV) 	<ul style="list-style-type: none"> • Special Topics in Cardiovascular System of Elderly • The Care of Mental Health in the Elderly • Independent Studies in Cardiovascular Disease of the Elderly • Independent Studies in Digestive System of the Elderly • Independent Studies in Cancers of the Elderly • Independent Studies of Oral, Otolaryngology Head and Neck Field of the Elderly • Independent Studies in Genitourinary System of the Elderly • Independent Studies in Multiple Complementary Therapies for the Elderly