Graduate Institute of Biomedical Sciences, Chang Gung University
Graduate Program Master Curriculum (2023~2024)

1.Students pursuing a Master degree must fulfill a minimum 24 credits in course work and 6 credits for the Master thesis.
2. Students may choose any courses listed below.
3.The 6 credits for the "Master Dissertation" are given after passing the final defense and submitting the approved dissertation.
4.The student's guideline of the year has graduation requirements.

General Required Courses	Course Code	Course Title	Credit	Year	Semester		Note
					Fall	Spring	
Required	BMM013	Seminar	4	1~2	1	1	Students must take all 4 semesters.
Elective Courses	BMD355	Special Topics in Biochemistry, Cell & Molecular biology (1)	2	1	2		
	BMD254	Biological and Biomedical English Paper Writing Style	2	1	2		
	EMM002	Biochemistry and Molecular Biology	2	1	2		
	BMD601	Microbiology-Bacteriology	2	1	2		
	BMD602	Microbiology-Virology	2	1	2		
	BMD652	Advanced Immunology	3	1	3		
	EMM003	Bioinformatics & Biostatistics	2	1	2		
	BMD664	Writing theses and research proposals	2	1	2		
	BMD704	Human physiology	4	1	4		
	BMD241	Signal Transduction	2	1	2		
	BMD243	Special topics in circulation	3	1	3		
	BMD401	Advanced Technologies in Systems Biology	3	1	3		
	BMD453	Molecular Imaging	3	1	3		Offered bi-annually, starting in 2007
	BMD460	Vaccine Development	3	1	3		offered bi-annually, starting in 2009
	BMD454	Special Topics in Emerging Viruses	2	1	2		
	BMD665	Special Topics on RNA Viruses	2	1	2		
	BMD466	Free Radical Biology and Medicine	2	1	2		
	BMD464	Translational Cancer Medicine	2	1	2		Offered jointly with the MS program. Prerequisite: Cell Biology or Molecular Biology
	EMM110	Animal Model for Studying Emerging Infectious Diseases	2	1	2		
	EMM111	Genomic Data Science	2	1	2		
	EMM112	Deep Learning with Python	2	1	2		
	BMD403	Molecular & Cellular Biology	2	1	2		
	MTM127	Recent advances in Biotechnology Applied in human Diseases	2	1	2		
	new	Molecular Virology Laboratory	2	1	2		Summer course, class limit: up to 20 students
	BMD344	Special Topics in Membrane Trafficking and Exocytosis	2	1		2	
	EMM103	Advanced Cell Biology	2	1		2	
	EMM107	Cell Growth and Apoptosis	2	1		2	
	BMD356	Special Topics in Biochemistry, Cell & Molecular biology (2)	2	1		2	
	EMM106	Advances in Immunology	2	1		2	

	BMD660	Bacterial pathogenesis	2	1		2	
	BMD705	Medical Pharmacology	4	1		4	
	BMD248	Special topics in pharmacology	2	1		2	offered bi-annually, starting in 2023
	BMD402	Scientific Integrity and Scientific Writing	2	2		2	
	BMD461	Advanced Bacteriology	2	1		2	
	BMD404	Technologies and Advances in Emerging Viral Infections	2	1		2	
	EMM114	Methodology of Molecular Virology	2	1		2	
	EMM115	Anti-virus Drug Development	2	1		2	
	Emm116	Advanced Clinical Virology	2	1		2	
	Emm117	Test Reagent Kit Development	2	1		2	
	MTM177	Personalized Precision Medicine	2	1		2	
	AIM104	Clinical Informatics	3	1		3	

Note: Subjects chosen by students must be approved and signed by the Thesis supervisor.

Director of GIBMS:_____ **Head of the Course Committee:**_____