Mahidol University
Institute of
Molecular Biosciences

MBMB HANDBOOK

Shaping the Future Through Discovery

2025

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1 Administration

1.1 MB Administrators

Assoc. Prof. Dr. M.L. Saovaros Svasti	Director
Prof. Dr. Banthit Chetsawang	Deputy Director for Academic Affairs
Professor Dr. Porntip Petmitr	Deputy Director for Administration
Prof. Dr. Chalermporn Ongvarrasopone	Deputy Director for Planning and Quality Development
Prof. Dr. Duncan Richard Smith	Assistant Director for Research and Foreign Relations
Lect. Dr. Kittiphong Paiboonsukwong, M.D.	Assistant Director for Academic Services and Social Engagement

1.2 MBMB Administrative Program Committee

Dr. Kitipong Uaesoontrachoon	Program Advisor
Prof. Dr. Banthit Chetsawang	Program Advisor
Assoc. Prof. Dr. Chalongrat Noree	Program Director
Assoc. Prof. Dr. Poochit Nonejuie	Member & Secretary
Prof. Dr. Apinunt Udomkit	Member
Prof. Dr. Panadda Boonserm	Member
Asst. Prof. Dr. Narisorn Kitiyanant	Member
Asst. Prof. Dr. Natee Jearawiriyapaisarn	Member
Asst. Prof. Dr. Alisa Tubsuwan	Member
Asst. Prof. Dr. Phatchariya Phannasil	Member
Asst. Prof. Dr. Jiraporn Panmanee	Member
Lecturer Dr. Siraprapa Boobphahom	Member
Lecturer Dr. Ittipat Meewan	Member

2 Graduate Program “MBMB”

Graduate Program in Molecular and Integrative Biosciences (or MBMB for short) has been developed using our previous graduate program (Graduate Program in Molecular Genetics and Genetic Engineering, aka MGGE or MBMG) as a background structure (MGGE was first launched in 1995 before being transformed into MBMB, starting in Academic Year 2025).

This program offers comprehensive lectures and research opportunities in both fundamental and applied aspects, tailored to various career paths, with 8 specialized pathways available as follows:

- Advanced Therapy Medicinal Products (ATMPs)
- Antibiotic Resistance
- Biosensor Technology
- Drug Discovery and Precision Medicine
- Integrative Neuroscience Research
- Sustainable AgriTech
- Thalassemia Research
- Vaccines and Antiviral Drugs

Education Philosophy

The program intends to produce graduates with practical knowledge, technical expertise, and innovative thinking by focusing on outcome-based education and constructivist principles for their self-development of knowledge, skills, and concepts in Molecular and Integrative Biosciences.

Career Opportunities of the Graduates

- Researcher / Research Assistant
- Academic Personnel / Lecturer
- Entrepreneur / Innovator
- Sales Representative
- Product Specialist / Technical Support Staff
- Science Communicator

For more details: https://mb.mahidol.ac.th/web/en/mbmb/
https://mbmb4all.wordpress.com

2.1 Curriculum

Master of Science Program

The M.Sc. curriculum consists of 20-credit coursework (mostly completed in the first year) and 16-credit thesis (conducted in the second year).

Year 1 Semester 1 (Foundation)		Year 1 Semester 2 (Specialized Pathway)	
Graduate School Essentials for M.Sc. Students in Molecular and Integrative Biosciences	2 credits	1) Collect elective courses (at least 6 credits) following recommended specialized pathway (consult with tentative thesis advisor), or 2) Choose any elective courses (at least 6 credits) as you like (no pathway)	
Molecular Biology	2 credits		
Cell Biology	3 credits		
Integrative Biosciences	1 credit	M.Sc. Research Design in Molecular and Integrative Biosciences (+ Proposal Exam)	1 credits
Total	8 credits	Total	7 credits (minimum)
Year 2 Semester 1 (Thesis)		Year 2 Semester 2 (Thesis)	
Thesis (+ Progress Evaluation)	8 credits	Thesis (+ Defense)	8 credits
M.Sc. Seminar	1 credit	M.Sc. Research Forum	1 credit
Elective course (Current Topics in Molecular and Integrative Biosciences)	1 credit	Elective course (Apprentice Teaching)	1 credit
		Elective course (Career Development)	1 credit
Total	10 credits	Total	11 credits
Grand Total = 36 credits as a minimum			

Doctor of Philosophy Program

The Doctor of Philosophy program is composed of two study plans.

Plan 2.1 For students holding an M.Sc. degree

For those who obtained an M.Sc. degree, students are expected to undertake at least 12 credits of coursework and conduct a research thesis for 36 credits.

Semester 1		Semester 2	
Graduate School Essentials for Ph.D. Students in Molecular and Integrative Biosciences	2 credits	Ph.D. Research Design in Molecular and Integrative Biosciences (+ Proposal Exam)	1 credits
Ph.D. Seminar	2 credits	Dissertation (+ Progress Evaluation)	7 credits
Elective course (Advanced Current Topics in Molecular and Integrative Biosciences)	1 credit	Qualifying Exam	-
Total	5 credits	Total	8 credits
Semester 3		**Semester 4**	
Dissertation (+ Progress Evaluation)	7 credits	Dissertation (+ Progress Evaluation)	7 credits
Elective course (Apprentice Teaching)	1 credit	Ph.D. Research Forum	2 credits
		Elective course (Career Development)	1 credit
Total	8 credits	Total	10 credits
Semester 5		**Semester 6**	
Dissertation (+ Progress Evaluation)	7 credits	Dissertation (+ Defense)	8 credits
Ph.D. Research Communication to the General Public	2 credits		
Total	9 credits	Total	8 credits
Grand Total = 48 credits as a minimum			

Plan 2.2 For students holding a B.Sc. degree

For those who graduated with a B.Sc. degree with a GPA ≥ 3.5, the course minimum requirements are 24–credit course work and a 48–credit dissertation.

Semester 1 (Foundation)		Semester 2 (Specialized Pathway)	
Graduate School Essentials for Ph.D. Students in Molecular and Integrative Biosciences	2 credits	1) Collect elective courses (at least 6 credits) following recommended specialized pathway (consult with tentative thesis advisor), or 2) Choose any elective courses (at least 6 credits) as you like (no pathway)	
Molecular Biology	2 credits		
Cell Biology	3 credits		
Integrative Biosciences	1 credit	Qualifying Exam	-
Total	8 credits	Total	6 credits
Semester 3 (Thesis)		**Semester 4 (Thesis)**	
Ph.D. Research Design in Molecular and Integrative Biosciences (+ Proposal Exam)	1 credits	Dissertation (+ Progress Evaluation)	8 credits
Dissertation	8 credits	Ph.D. Research Forum	2 credits
Ph.D. Seminar	2 credits	Elective course (Teaching Apprentice)	1 credit
Elective course (Advanced Current Topics in Molecular and Integrative Biosciences)	1 credit		
Total	12 credits	Total	11 credits
Semester 5 (Thesis)		**Semester 6 (Thesis)**	
Dissertation (+ Progress Evaluation)	8 credits	Dissertation (+ Progress Evaluation)	8 credits
Ph.D. Research Communication to the General Public	2 credits	Elective course (Career Development)	1 credit
Total	10 credits	Total	9 credits
Semester 7 (Thesis)		**Semester 8 (Thesis)**	
Dissertation (+ Progress Evaluation)	8 credits	Dissertation (+ Defense)	8 credits
Grand Total = ~~72~~ credits as a minimum			

2.2 List of MBMB Courses

Required Courses

		Credits (lecture – laboratory – self-study)
MBMB 500	Graduate School Essentials for M.Sc. Students in Molecular and Integrative Biosciences	2(2-0-4)
MBMB 600	Graduate School Essentials for Ph.D. Students in Molecular and Integrative Biosciences	2(2-0-4)
MBMB 501	Molecular Biology	2(1-2-3)
MBMB 502	Cell Biology	3(2-2-5)
MBMB 503	Integrative Biosciences	1(0-2-1)
MBMB 504	M.Sc. Research Design in Molecular and Integrative Biosciences	1(0-2-1)
MBMB 604	Ph.D. Research Design in Molecular and Integrative Biosciences	1(0-2-1)
MBMB 505	M.Sc. Seminar in Molecular and Integrative Biosciences	1(1-0-2)
MBMB 605	Ph.D. Seminar in Molecular and Integrative Biosciences	2(2-0-4)
MBMB 506	M.Sc. Research Forum	1(1-0-2)
MBMB 606	Ph.D. Research Forum	2(2-0-4)
MBMB 607	Ph.D. Research Communication to the General Public	2(2-0-4)

Elective Courses

		Credits (lecture – laboratory – self-study)
MBMB 521	Current Topics in Molecular and Integrative Biosciences	1(1-0-2)
MBMB 621	Advanced Current Topics in Molecular and Integrative Biosciences	1(1-0-2)
MBMB 522	Apprentice Teaching (M.Sc.)	1(0-2-1)
MBMB 622	Apprentice Teaching (Ph.D.)	1(0-2-1)
MBMB 523	Career Development for Molecular Biosciences Students (M.Sc.)	1(0-2-1)
MBMB 623	Career Development for Molecular Biosciences Students (Ph.D.)	1(0-2-1)
MBMB 624	Adeno-Associated Viral Vectors	1(0-2-1)
MBMB 625	Antibacterial and Bacteriophage	2(1-2-3)
MBMB 626	Bacteriology	2(2-0-4)

Elective Courses

		Credits (lecture – laboratory – self-study)
MBMB 627	Bio-Based Products for Sustainability	1(0-2-1)
MBMB 628	Biosensor Technology: Fundamentals and Applications	2(2-0-4)
MBMB 629	Cancer Biology and Precision Medicine	2(2-0-4)
MBMB 630	Cellular and Molecular Imaging	1(1-0-2)
MBMB 631	CRISPR/Cas9 Genome Editing	1(0-2-1)
MBMB 632	DNA Barcoding	1(0-2-1)
MBMB 633	DNA Sequencing for Bacterial Pathogen Study	1(0-2-1)
MBMB 634	Drug Discovery and Development	1(0-2-1)
MBMB 635	Environmental DNA (eDNA): Technique for Biodiversity Conservation	1(0-2-1)
MBMB 636	Experimental Animals for Biosciences Research	1(0-2-1)
MBMB 637	Fluorescent Protein Technology and Yeast Genome Engineering	1(0-2-1)
MBMB 638	Fundamental Neuroscience	1(1-0-2)
MBMB 639	Induced Pluripotent Stem Cell (iPSC) Generation and Characterization	1(0-2-1)
MBMB 640	Introduction to Machine Learning for Molecular Biosciences Research	1(1-0-2)
MBMB 641	Lentiviral Vectors	1(0-2-1)
MBMB 642	mRNA Vaccine Development	1(0-2-1)
MBMB 643	Omics in Gene Regulation Studies	1(1-0-2)
MBMB 644	PCR-Based Gene Mutagenization for Protein Engineering	1(0-2-1)
MBMB 645	Prime Editing Technique	1(0-2-1)
MBMB 646	Proteomics Technologies and Applications	1(1-0-2)
MBMB 647	Research to Business	1(0-2-1)
MBMB 648	Starch Modification for Functional Food Innovation	1(0-2-1)
MBMB 649	Structural Bioinformatics and Drug Design	1(0-2-1)
MBMB 650	Technological Innovative Learning	2(2-0-4)
MBMB 651	Thalassemia: From Bench to Bedside	2(1-2-3)
MBMB 652	Vaccine Design	1(1-0-2)
MBMB 653	Vaccine Technology and Development	1(1-0-2)
MBMB 654	Virological Techniques	2(0-4-2)
MBMB 655	Virus and Cell Interaction	2(2-0-4)
MBMB 656	Working with Pathogens in Secure Laboratory (BSL2/BSL3)	1(0-2-1)

Course Description

(1) Required Courses

Credits (lecture – laboratory – self-study)

MBMB 500 Graduate School Essentials for M.Sc. Students in Molecular and Integrative Biosciences **2(2–0–4)**

Scientific methods; research ethics; chemical safety; biosafety; biometry; intellectual property; research disciplines in molecular and integrative biosciences

MBMB 600 Graduate School Essentials for Ph.D. Students in Molecular and Integrative Biosciences **2(2–0–4)**

Advanced research methods; research ethics management; chemical risk management; biological risk management; biometry; intellectual property management; research disciplines in molecular and integrative biosciences

MBMB 501 Molecular Biology **2(1–2–3)**

Overview of central dogma; DNA and RNA structure and function; protein structure and function; DNA replication; transcription; protein translation; gene expression and regulation in prokaryotes; gene expression and regulation in eukaryotes; molecular basis of mutation; recombinant DNA technology; nucleic acid-based technologies; protein-based technologies; DNA and RNA extraction; DNA cloning; PCR and agarose gel electrophoresis; protein extraction; SDS-PAGE

MBMB 502 Cell Biology **3(2–2–5)**

Cell structure and organelles; cellular compartments and intracellular sorting; membrane transport; cell signaling and transduction; cell cycle and division; cellular response to stress; cell aging and senescence; cell death; cell adhesion, cell junction and extracellular matrix; cell specialization; stem cells and tissue renewal; cell immunity; cell metabolism; plant cell biology; cellular network analysis & data visualization; basic mammalian cell culture techniques; compound treatments & DNA transfection; MTT assay; flow cytometry; immunofluorescence; confocal microscopy

MBMB 503 Integrative Biosciences 1(0–2–1)

Inspiration talk on integrative and innovative biosciences; innovation and design thinking process; cutting-edge biotechnology; identification and defining of problems; idea generation and evaluation; development of new products and technological innovation; scientific presentation; business pitching

MBMB 504 M.Sc. Research Design in Molecular and Integrative Biosciences 1(0–2–1)

Literature review; research rationale; research questioning; research hypothesis; research objectives; research design

MBMB 604 Ph.D. Research Design in Molecular and Integrative Biosciences 1(0–2–1)

Literature review; research rationale; research questioning; research hypothesis; research objectives; research design

MBMB 505 M.Sc. Seminar in Molecular and Integrative Biosciences 1(1–0–2)

Finding scientific research articles of interest in Molecular and Integrative Biosciences; critical analysis of articles; presentation; critical comment; discussion

MBMB 605 Ph.D. Seminar in Molecular and Integrative Biosciences 2(2–0–4)

Searching current research in molecular and integrative biosciences; literature reviews; critical analysis; database search; presentation; discussion and constructive critique of research articles and research findings; questions and answers

MBMB 506 M.Sc. Research Forum 1(1–0–2)

Presentation of new research findings; research methodologies; developing skills in academic meeting organization; in-depth critique of research work

MBMB 606 Ph.D. Research Forum 2(2–0–4)

Presentation of new research findings; advanced research methodologies; developing skills in academic meeting organization; in-depth critique of research work

MBMB 607 Ph.D. Research Communication to the General Public 2(2–0–4)

How to communicate research to general public and adopt the audience perspectives; new ideas to communicate to listeners; principle, concept and transformation of technical terms to general messages; different types of communication methods; case studies for the communication success; practical skills for building a effective communication to general public

(2) Elective courses

Credits (lecture – laboratory – self-study)

MBMB 521 Current Topics in Molecular and Integrative Biosciences 1(1–0–2)

Interpretation of scientific literature; critical review; discussion of recent publications; advanced knowledge and technology in molecular and integrative biosciences

MBMB 621 Advanced Current Topics in Molecular and Integrative Biosciences 1(1–0–2)

Interpretation of scientific literature; critical review; discussion of recent publications; advanced knowledge and technology in molecular and integrative biosciences

MBMB 522 Apprentice Teaching (M.Sc.) 1(0–2–1)

Teaching and training procedure; teaching plan preparation; teaching materials preparation; teaching practice; workshop organization

MBMB 622 Apprentice Teaching (Ph.D.) 1(0–2–1)

Teaching and training procedure; teaching plan preparation; teaching materials preparation; teaching practice; workshop organization; making digital media for online teaching

MBMB 523 Career Development for Molecular Biosciences Students (M.Sc.) 1(0–2–1)

Research proposal preparation; research grant application; manuscript preparation and submission; lab organization and management; biosafety and chemical safety; teaching and research training; research collaboration; entrepreneurial mindset; innovative creativity and design thinking; translational process from research to life; biotech and life science startups; work-life balance; curriculum vitae preparation and job application

MBMB 623 Career Development for Molecular Biosciences Students (Ph.D.) 1(0–2–1)

Research proposal preparation; research grant application; manuscript preparation and submission; lab organization and management; biosafety and chemical safety; teaching and research training; research collaboration; entrepreneurial mindset; innovative creativity and design thinking; translational process from research to life; biotech and life science startups; work-life balance; curriculum vitae preparation and job application

MBMB 624 Adeno-Associated Viral Vectors 1(0–2–1)

Adeno-associated viral vector overview; upstream bioprocessing of adeno-associated viral vector; downstream bioprocessing of adeno-associated viral vector; vector characterization and quality control; working safely with adeno-associated viral vector

MBMB 625 Antibacterial and Bacteriophage 2(1–2–3)

Basic microbiology techniques; antibiotics; mechanism of action of antibiotics; antibiotic susceptibility testing; fluorescence microscopy; phages; phage screening and isolation; phage therapy

MBMB 626 Bacteriology 2(2–0–4)

Bacterial cell structure and function; bacterial cell envelope; bacterial genetics; bacterial genome structure and organization; bacterial adaptation and evolution; mechanisms of gene transfer; antibiotics; mechanism of action of antibiotics; antimicrobial resistance; microbiome; environmental microbiome; microbiome in health and diseases; microbiome engineering; bacteriophages; bacteriophage replication cycle; phage therapy

MBMB 627 Bio-Based Products for Sustainability 1(0–2–1)

Overview of bio-based products and sustainability; validation of commercial products; biopesticides; basic molecular techniques for research and development; pathway from research to product development and commercialization; potential and challenges for bio-based products; visiting laboratory and bio-business sites

MBMB 628 Biosensor Technology: Fundamentals and Applications 2(2–0–4)

Introduction to biosensor technology; biosensors classification; bio-receptor in biosensors; nanomaterials for biosensor development; techniques in biosensor fabrication; integration of engineering and biology for design of biosensors; design of point-of-care testing for medical screening; applications of biosensors in biomedical and clinical research

MBMB 629 Cancer Biology and Precision Medicine 2(2–0–4)

Introduction to cancer biology; hallmarks of cancer; cancer metastasis; cancer metabolism; molecular targets for cancer therapy; precision medicine; techniques in cancer biology; target identification in cancer treatment; anti-cancer drug discovery; applications in cancer research

MBMB 630 Cellular and Molecular Imaging 1(1–0–2)

Microscopy and imaging in the biomedical sciences; SIM/STED super-resolution microscopy; electron microscopy; live cell imaging; quantitative imaging; application of advanced microscopy methods for current research topics

MBMB 631 CRISPR/Cas9 Genome Editing 1(0–2–1)

CRISPR/Cas9 genome editing; guide RNA design; construction of plasmid expressing guide RNA and Cas9; delivery of CRISPR/Cas9 components into human cells; analysis of gene editing outcomes by T7 endonuclease I assay; Sanger sequencing and computational analysis

MBMB 632 DNA Barcoding 1(0–2–1)

DNA barcoding; DNA extraction; PCR for DNA barcoding; gel electrophoresis and DNA staining; DNA sequencing; BLAST database search; data alignment; phylogenetic tree construction; species identification

MBMB 633 DNA Sequencing for Bacterial Pathogen Study 1(0–2–1)

Bacterial pathogens in food and food-related environments; molecular detection and identification of bacteria; advanced DNA sequencing techniques with applications for food and environmental safety; sequencing data analyses; data-driven strategic responses and communication schemes across related sectors

MBMB 634 Drug Discovery and Development 1(0–2–1)

Fundamentals of drug discovery and development; drug discovery and development process; selection and validation of drug targets for treatment; bioinformatic tools for drug target selection; virtual and high-throughput screening; pharmacological importance and selection criteria of drug candidates; drug optimization and lead optimization; activity and toxicity evaluation

MBMB 635 Environmental DNA (eDNA): Technique for Biodiversity Conservation 1(0–2–1)

Introduction to eDNA; overview of metagenomics and metabarcoding; environmental DNA (eDNA) techniques for biodiversity research; difference between genomes and metagenomes; differences in standard methods for DNA barcoding and metabarcoding; metagenomics workflow and interpretation after analysis of whole-genome shotgun sequences; metabarcoding markers; primer design; PCR library preparation; taxonomic assignment

MBMB 636 Experimental Animals for Biosciences Research 1(0–2–1)

Experimental animals for biosciences; ethical principles for laboratory animals; transgenic mouse model; laboratory animal husbandry; statistical analysis for sample size in animal models; technical skills to handle mouse model; behavior tests; gavage; sample collection

MBMB 637 Fluorescent Protein Technology and Yeast Genome Engineering 1(0–2–1)

PCR-based yeast genome engineering; plasmid construction for yeast genome engineering; primer design for DNA cassette amplification; DNA cassette preparation by PCR and PCR purification; yeast culture; yeast transformation and selection; fluorescent protein technology; fluorescence microscopic analysis

MBMB 638 Fundamental Neuroscience 1(1–0–2)

Introduction to neuroscience and the nervous system; neurons and neural communication; synaptic transmission and neurotransmitters; central nervous system and peripheral nervous system; sensory systems: vision and audition; sensory systems: taste, smell, and somatosensation; motor systems and movement; learning and memory; cognitive processes: attention and perception; brain development and plasticity; neurological disorders and their impact

MBMB 639 Induced Pluripotent Stem Cell (iPSC) Generation and Characterization 1(0–2–1)

Introduction to induced pluripotent stem cells; iPSC reprogramming; iPSC characterization; iPSC passaging and maintenance; iPSC cryopreservation; applications of iPSC for regenerative medicine and drug discovery; immunofluorescence staining of pluripotency markers

MBMB 640 Introduction to Machine Learning for Molecular Biosciences Research 1(1–0–2)

Data collection; data preprocessing; data visualization; databases for molecular and biosciences research; neural networks; deep learning; convolutional neural networks; sequence models; machine learning models; supervised learning; unsupervised learning; reinforcement learning; hyperparameter tuning; basic coding for molecular and biosciences research applications; Python programming language

MBMB 641 Lentiviral Vectors **1(0–2–1)**

Lentiviral vector overview; upstream bioprocessing of lentiviral vector; downstream bioprocessing of lentiviral vector; vector characterization and quality control; working safely with lentiviral vector

MBMB 642 mRNA Vaccine Development **1(0–2–1)**

Introduction of mRNA therapeutics; mechanism of mRNA vaccine; components and design of mRNA vaccine; RNA synthesis by in vitro transcription; mRNA delivery; evaluation of mRNA efficiency; prospective mRNA vaccines

MBMB 643 Omics in Gene Regulation Studies **1(1–0–2)**

Genome-wide association study; transcriptomics; proteomics; epigenomics; multi-omics approaches; DNase I hypersensitive sites sequencing (DNase-Seq); assay for transposase-accessible chromatin using sequencing (ATAC-Seq); chromatin immunoprecipitation sequencing (ChIP-Seq); cleavage under targets and release using nuclease (CUT&RUN); chromosome conformation capture (3C) and its derivatives

MBMB 644 PCR-Based Gene Mutagenization for Protein Engineering **1(0–2–1)**

PCR-based site-directed mutagenesis; plasmid construction for PCR-based gene mutagenization; primer design for PCR-based site-directed mutagenesis; bacterial transformation and selection; protein expression in E. coli system; western blot analysis; fluorescence microscopic analysis

MBMB 645 Prime Editing Technique **1(0–2–1)**

Prime editing technology; design of prime editing components; plasmid construction for expressing prime editing components; basic cell culture techniques and DNA transfection; genome editing analysis by PCR; next-generation sequencing and web-based programs

MBMB 646 Proteomics Technologies and Applications **1(1–0–2)**

Proteomics; mass spectrometry; protein identification; quantitative proteomics; protein-protein interactions; expression proteomics; protein post-translational modifications; data analysis

MBMB 647 Research to Business **1(0–2–1)**

Intellectual property; entrepreneurship and ecosystem for innovation in university; startup by university students; professional excursions in biotech industry; innovation development in public organizations and private enterprises; commercialization of innovations; entrepreneurial management; regulatory framework in the biotech industry; trends in biotechnology investment; exploration of future business networking

MBMB 648 Starch Modification for Functional Food Innovation 1(0–2–1)

Structural characterization of starch; starch physicochemical properties; resistant starch for health-promoting benefits; physical, chemical and enzymatic modification; starch extraction; modified starch; functional food

MBMB 649 Structural Bioinformatics and Drug Design 1(0–2–1)

Structural biology; structural bioinformatics; structure-guided and rationale drug design techniques; biological database; AI/ML for drug design platforms; bioinformatics data; amino acid sequence alignment; biological website; HTML and CSS; problem-based learning in drug discovery

MBMB 650 Technological Innovative Learning 2(2–0–4)

Principle, concept, design and application of technological innovative learning to improve biosciences education process; role of technology in the learning process; online teaching and learning strategies; technology for measurement and evaluation in biosciences education; learning management system for technological innovative education; relationship between technology and educational reform; relationship between technology, specific content, and pedagogy

MBMB 651 Thalassemia: From Bench to Bedside 2(1–2–3)

Erythropoiesis; hemoglobin synthesis and regulation; pathophysiology and clinical manifestations of thalassemia; molecular biology of thalassemia and abnormal hemoglobin; genotype-phenotype interaction; iron overload; conventional managements; novel therapies; laboratory diagnosis; prevention and control

MBMB 652 Vaccine Design 1(1–0–2)

Introduction to vaccine; type and concept of vaccination; fundamentals of vaccine immunology; approaches and techniques for testing the immunogenicity of vaccine; immunoassay; live attenuated and inactivated vaccine design; viral vector and nucleic acid-based vaccine design; structure-based vaccine design; bioinformatics approaches for vaccine antigen design

MBMB 653 Vaccine Technology and Development 1(1–0–2)

Prelude to vaccinology: vaccine development pathway; non-clinical evaluation of vaccine; clinical vaccine development process; introduction to vaccine manufacturing; overview of regulation and quality control of vaccine manufacturing; adjuvants for vaccines; vaccine delivery; case study of vaccine innovation; manufacturing facility

MBMB 654 Virological Techniques 2(0–4–2)

Virological techniques; basic cell culture techniques; virus infection; inoculation and propagation; cell culture; embryonated egg; mosquito; virus detection and quantification; plaque titration; TCID50; quantitative real-time PCR; ELISA

MBMB 655 Virus and Cell Interaction 2(2–0–4)

Introduction to virology; attachment and entry; virus replication and expression; RNA viruses; DNA viruses; reverse transcription and host genome integration; virus-host interactome; cellular responses to viral infection (innate immunity and adaptive immunity); introduction to vaccinology; vaccine design and development

MBMB 656 Working with Pathogens in Secure Laboratory (BSL2/BSL3) 1(0–2–1)

Introduction to biosafety and laboratory levels; laboratory design and engineering control; risk assessment and hazard recognition; laboratory equipment and personal protective equipment (PPE); laboratory access control and emergency procedures; handling and cultivation of pathogens in BSL2 laboratories; working with BSL2 pathogens; introduction to BSL3 laboratories; pathogen handling in BSL3 laboratories

(3) Thesis

Credits (lecture – laboratory – self-study)

MBMB 698 Thesis 16(0–48–0)

Literature review on subject related to the student's research; research in molecular and integrative biosciences conducted with research ethics awareness under the supervision of the thesis advisory committee; thesis writing; conference proceedings

MBMB 699 Dissertation 36(0–108–0)

Literature review on subject related to the student's research; research in molecular and integrative biosciences conducted with research ethics awareness under the supervision of the dissertation advisory committee; dissertation writing; publication of research work in international peer-reviewed journals

MBMB 799 Dissertation 48(0–144–0)

Literature review on subject related to the student's research; research in molecular and integrative biosciences conducted with research ethics awareness under the supervision of the dissertation advisory committee; dissertation writing; publication of research work in international peer-reviewed journals

2.3 Faculty Members

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3 Appendices

3.1 Program Learning Outcomes (PLOs)

3.1.1 PLOs (Master of Science Program)

After completing the program, students will be able to:

PLO1 Conceptualize, integrate, and apply fundamental knowledge of theory and practice in Molecular and Integrative Biosciences **(Knowledge).**

PLO2 Exercise cognitive and practical skills essential for conducting research in the field of Molecular and Integrative Biosciences **(Skills).**

PLO3 Adhere to ethical standards and integrity in both personal and professional practices **(Ethics).**

PLO4 Possess academic and research communication, leadership and adaptability **(Characters).**

3.1.2 PLOs (Doctor of Philosophy Program)

After completing the program, students will be able to:

PLO1 Evaluate and integrate novel ideas to synthesize complex knowledge systems within the field of Molecular and Integrative Biosciences **(Knowledge).**

PLO2 Create and internationally publish high-quality research in Molecular and Integrative Biosciences **(Skills).**

PLO3 Adhere to and advise best practices for ethics and integrity in both personal and professional practices **(Ethics).**

PLO4 Possess academic and research communication, leadership and adaptability in diverse, interdisciplinary, and international environments **(Characters).**

3.2 Curriculum Mapping (M.Sc.)

Course Codes & Course Titles	Number of Credits	Program-Level Learning Outcomes (PLOs)			
		PLO1	PLO2	PLO3	PLO4
First Year					
Semester 1					
MBMB 500 Graduate School Essentials for M.Sc. Students in Molecular and Integrative Biosciences	2(2–0–4)	I	I	I	I
MBMB 501 Molecular Biology	2(1–2–3)	R	R	R	R
MBMB 502 Cell Biology	3(2–2–5)	R	R	R	R
MBMB 503 Integrative Biosciences	1 (0–2–1)	P	P	R	P
Semester 2					
MBMB 504 M.Sc. Research Design in Molecular and Integrative Biosciences	1(0–2–1)	P	P	P	P
Second Year					
Semester 1					
MBMB 505 M.Sc. Seminar in Molecular and Integrative Biosciences	1(1–0–2)	P	P	P	P
MBMB 698 Thesis	8(0–24–0)	P/A	P/A	P/A	P/A
Thesis Progress Evaluation					
Semester 2					
MBMB 506 M.Sc. Research Forum	1(1–0–2)	P	P	P	P
MBMB 698 Thesis	8(0–24–0)	M	M	M	M
Thesis Defense Examination					

Notes:

I	=	PLO is Introduced
R	=	PLO is Reinforced
P	=	PLO is Practiced
M	=	Level of Mastery is Assessed
A	=	PLOs are assessed

Table 2 Electives in General Education Courses

Course Codes & Course Titles	Number of Credits	Program-Level Learning Outcomes (PLOs)			
		PLO1	PLO2	PLO3	PLO4
N/A	N/A	N/A	N/A	N/A	N/A

Table 3 Electives in Specific Courses

Course Codes & Course Titles	Number of Credits	Program-Level Learning Outcomes (PLOs)			
		PLO1	PLO2	PLO3	PLO4
MBMB 521 Current Topics in Molecular and Integrative Biosciences	1(1–0–2)	P	P	P	P
MBMB 522 Apprentice Teaching (M.Sc.)	1(0–2–1)	P	P	P	P
MBMB 523 Career Development for Molecular Biosciences Students (M.Sc.)	1(0–2–1)	P	P	P	P
MBMB 624 Adeno-Associated Viral Vectors	1(0–2–1)	P	P	P	P
MBMB 625 Antibacterial and Bacteriophage	2(1–2–3)	P	P	P	P

MBMB 626 Bacteriology	2(2–0–4)	P	P	P	P
MBMB 627 Bio-Based Products for Sustainability	1(0–2–1)	P	P	P	P
MBMB 628 Biosensor Technology: Fundamentals and Applications	2(2–0–4)	P	P	P	P
MBMB 629 Cancer Biology and Precision Medicine	2(2–0–4)	P	P	P	P
MBMB 630 Cellular and Molecular Imaging	1(1–0–2)	P	P	P	P
MBMB 631 CRISPR/Cas9 Genome Editing	1(0–2–1)	P	P	P	P
MBMB 632 DNA Barcoding	1(0–2–1)	P	P	P	P
MBMB 633 DNA Sequencing for Bacterial Pathogen Study	1(0–2–1)	P	P	P	P
MBMB 634 Drug Discovery and Development	1(0–2–1)	P	P	P	P
MBMB 635 Environmental DNA(eDNA): Technique for Biodiversity Conservation	1(0–2–1)	P	P	P	P
MBMB 636 Experimental Animals for Biosciences Research	1(0–2–1)	P	P	P	P
MBMB 637 Fluorescent Protein Technology and Yeast Genome Engineering	1(0–2–1)	P	P	P	P
MBMB 638 Fundamental Neuroscience	1(1–0–2)	R	R	P	P
MBMB 639 Induced Pluripotent Stem Cell (iPSC) Generation and Characterization	1(0–2–1)	P	P	P	P
MBMB 640 Introduction to Machine Learning for Molecular Biosciences Research	1(1–0–2)	P	P	P	P

MBMB 641 Lentiviral Vectors	1(0–2–1)	P	P	P	P
MBMB 642 mRNA Vaccine Development	1(0–2–1)	P	P	P	P
MBMB 643 Omics in Gene Regulation Studies	1(1–0–2)	P	P	P	P
MBMB 644 PCR-Based Gene Mutagenization for Protein Engineering	1(0–2–1)	P	P	P	P
MBMB 645 Prime Editing Technique	1(0–2–1)	P	P	P	P
MBMB 646 Proteomics Technologies and Applications	1(1–0–2)	P	P	P	P
MBMB 647 Research to Business	1(0–2–1)	R	R	P	P
MBMB 648 Starch Modification for Functional Food Innovation	1(0–2–1)	P	P	P	P
MBMB 649 Structural Bioinformatics and Drug Design	1(0–2–1)	R	R	P	P
MBMB 650 Technological Innovative Learning	2(2–0–4)	P	P	P	P
MBMB 651 Thalassemia: From Bench to Bedside	2(1–2–3)	P	P	P	P
MBMB 652 Vaccine Design	1(1–0–2)	P	P	P	P
MBMB 653 Vaccine Technology and Development	1(1–0–2)	R	R	P	P
MBMB 654 Virological Techniques	2(0–4–2)	P	P	P	P
MBMB 655 Virus and Cell Interaction	2(2–0–4)	P	P	P	P
MBMB 656 Working with Pathogens in Secure Laboratory (BSL2/BSL3)	1(0–2–1)	P	P	P	P

3.3 Curriculum Mapping (Ph.D.)

Course Codes & Course Titles	Number of Credits	Program-Level Learning Outcomes (PLOs)			
		PLO1	PLO2	PLO3	PLO4
First Year					
Semester 1					
MBMB 600 Graduate School Essentials for Ph.D. Students in Molecular and Integrative Biosciences	2(2–0–4)	I	I	I	I
MBMB 605 Ph.D. Seminar in Molecular and Integrative Biosciences	2(2–0–4)	P	P	P	P
Semester 2					
MBMB 604 Ph.D. Research Design in Molecular and Integrative Biosciences	1(0–2–1)	P	P	P	P
MBMB 699 Dissertation	7(0–21–0)	P/A	P/A	P/A	P/A
Qualifying Examination					
Second Year					
Semester 1					
MBMB 699 Dissertation	7(0–21–0)	P/A	P/A	P/A	P/A
Thesis Progress Evaluation					
Semester 2					
MBMB 606 Ph.D. Research Forum	2(2–0–4)	P	P	P	P
MBMB 699 Dissertation	7(0–21–0)	P/A	P/A	P/A	P/A
Thesis Progress Evaluation					

Third Year					
Semester 1					
MBMB 607 Ph.D. Research Communication to the General Public	2(2–0–4)	P	P	M	M
MBMB 699 Dissertation	7(0–21–0)	P/A	P/A	M	M
Thesis Progress Evaluation					
Semester 2					
MBMB 699 Dissertation	8(0–24–0)	M	M	M	M
Thesis Defense Examination					

Notes:

I = PLO is Introduced
R = PLO is Reinforced
P = PLO is Practiced
M = Level of Mastery is Assessed
A = PLOs are assessed

Plan 2.2 (for students with a Bachelor's degree)

Course Codes & Course Titles	Number of Credits	Program-Level Learning Outcomes (PLOs)			
		PLO1	PLO2	PLO3	PLO4
First Year					
Semester 1					
MBMB 600 Graduate School Essentials for Ph.D. Students in Molecular and Integrative Biosciences	2(2–0–4)	I	I	I	I
MBMB 501 Molecular Biology	2(1–2–3)	R	R	R	R
MBMB 502 Cell Biology	3(2–2–5)	R	R	R	R
MBMB 503 Integrative Biosciences	1(0–2–1)	P	P	R	P

Semester 2					
Qualifying Examination					
Second Year					
Semester 1					
MBMB 604 Ph.D. Research Design in Molecular and Integrative Biosciences	1(0–2–1)	P	P	P	P
MBMB 605 Ph.D. Seminar in Molecular and Integrative Biosciences	2(2–0–4)	P	P	P	P
MBMB 799 Dissertation	8(0–24–0)	P/A	P/A	P/A	P/A
Thesis Progress Evaluation					
Semester 2					
MBMB 606 Ph.D. Research Forum	2(2–0–4)	P	P	P	P
MBMB 799 Dissertation	8(0–24–0)	P/A	P/A	P/A	P/A
Thesis Progress Evaluation					
Third Year					
Semester 1					
MBMB 607 Ph.D. Research Communication to the General Public	2(2–0–4)	P	P	M	M
MBMB 799 Dissertation	8(0–24–0)	P/A	P/A	M	M
Thesis Progress Evaluation					
Semester 2					
MBMB 799 Dissertation	8(0–24–0)	P/A	P/A	M	M
Thesis Progress Evaluation					

Forth Year					
Semester 1					
MBMB 799 Dissertation	8(0–24–0)	M	M	M	M
Thesis Progress Evaluation					
Semester 2					
MBMB 799 Dissertation	8(0–24–0)	M	M	M	M
Thesis Defense Examination					

Notes:

I = PLO is Introduced
R = PLO is Reinforced
P = PLO is Practiced
M = Level of Mastery is Assessed
A = PLOs are assessed

Table 2 Electives in General Education Courses

Course Codes & Course Titles	Number of Credits	Program-Level Learning Outcomes (PLOs)			
		PLO1	PLO2	PLO3	PLO4
N/A	N/A	N/A	N/A	N/A	N/A

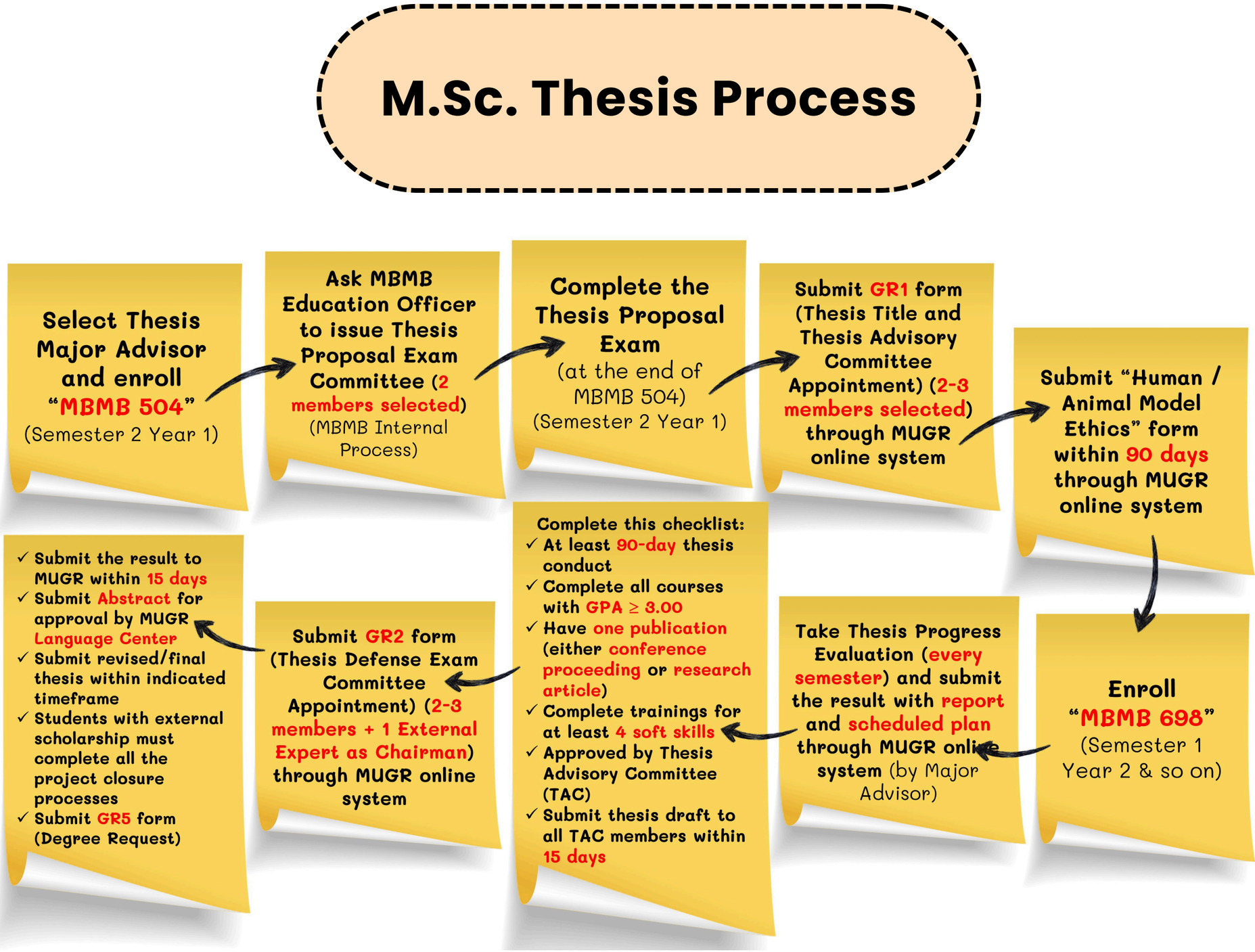
Table 3 Electives in Specific Courses

Course Codes & Course Titles	Number of Credits	Program-Level Learning Outcomes (PLOs)			
		PLO1	PLO2	PLO3	PLO4
MBMB 621 Advanced Current Topics in Molecular and Integrative Biosciences	1(1–0–2)	P	P	P	P
MBMB 622 Apprentice Teaching (Ph.D.)	1(0–2–1)	P	P	P	P
MBMB 623 Career Development for Molecular Biosciences Students (Ph.D.)	1(0–2–1)	P	P	P	P
MBMB 624 Adeno-Associated Viral Vectors	1(0–2–1)	P	P	P	P
MBMB 625 Antibacterial and Bacteriophage	2(1–2–3)	P	P	P	P
MBMB 626 Bacteriology	2(2–0–4)	P	P	P	P
MBMB 627 Bio-Based Products for Sustainability	1(0–2–1)	P	P	P	P
MBMB 628 Biosensor Technology: Fundamentals and Applications	2(2–0–4)	P	P	P	P
MBMB 629 Cancer Biology and Precision Medicine	2(2–0–4)	P	P	P	P
MBMB 630 Cellular and Molecular Imaging	1(1–0–2)	P	P	P	P
MBMB 631 CRISPR/Cas9 Genome Editing	1(0–2–1)	P	P	P	P
MBMB 632 DNA Barcoding	1(0–2–1)	P	P	P	P
MBMB 633 DNA Sequencing for Bacterial Pathogen Study	1(0–2–1)	P	P	P	P
MBMB 634 Drug Discovery and Development	1(0–2–1)	P	P	P	P

MBMB 635 Environmental DNA (eDNA): Technique for Biodiversity Conservation	1(0–2–1)	P	P	P	P
MBMB 636 Experimental Animals for Biosciences Research	1(0–2–1)	P	P	P	P
MBMB 637 Fluorescent Protein Technology and Yeast Genome Engineering	1(0–2–1)	P	P	P	P
MBMB 638 Fundamental Neuroscience	1(1–0–2)	R	R	P	P
MBMB 639 Induced Pluripotent Stem Cell (iPSC) Generation and Characterization	1(0–2–1)	P	P	P	P
MBMB 640 Introduction to Machine Learning for Molecular Biosciences Research	1(1–0–2)	P	P	P	P
MBMB 641 Lentiviral Vectors	1(0–2–1)	P	P	P	P
MBMB 642 mRNA Vaccine Development	1(0–2–1)	P	P	P	P
MBMB 643 Omics in Gene Regulation Studies	1(1–0–2)	P	P	P	P
MBMB 644 PCR-Based Gene Mutagenization for Protein Engineering	1(0–2–1)	P	P	P	P
MBMB 645 Prime Editing Technique	1(0–2–1)	P	P	P	P
MBMB 646 Proteomics Technologies and Applications	1(1–0–2)	P	P	P	P
MBMB 647 Research to Business	1(0–2–1)	R	R	P	P
MBMB 648 Starch Modification for Functional Food Innovation	1(0–2–1)	P	P	P	P
MBMB 649 Structural Bioinformatics and Drug Design	1(0–2–1)	R	R	P	P
MBMB 650 Technological Innovative Learning	2(2–0–4)	P	P	P	P

MBMB 651 Thalassemia: From Bench to Bedside	2(1–2–3)	P	P	P	P
MBMB 652 Vaccine Design	1(1–0–2)	P	P	P	P
MBMB 653 Vaccine Technology and Development	1(1–0–2)	P	P	P	P
MBMB 654 Virological Techniques	2(0–4–2)	P	P	P	P
MBMB 655 Virus and Cell Interaction	2(2–0–4)	P	P	P	P
MBMB 656 Working with Pathogens in Secure Laboratory (BSL2/BSL3)	1(0–2–1)	P	P	P	P

3.4 Students' Thesis Process



Ph.D. Dissertation Process for Students Holding B.Sc.

Complete the Qualifying Exam (QE)
- Submit GR35 (QE Committee Appointment) (15 days before QE)
- Take the Exam
- Submit the result to MUGR (within 1st Year)

→ **Select Dissertation Major Advisor and enroll "MBMB 604"** (Semester 1 Year 2)

→ **Ask MBMB Education Officer to issue Dissertation Proposal Exam Committee (3 members selected)** (MBMB Internal Process)

→ **Complete the Dissertation Proposal Exam** (at the end of MBMB 604) (Semester 1 Year 2)

→ **Submit GR1 form (Dissertation Title and Dissertation Advisory Committee Appointment) (3-4 members selected) through MUGR online system**

→ **Submit "Human / Animal Model Ethics" form within 90 days through MUGR online system**

→ **Enroll "MBMB 699"** (Semester 1 Year 2 & so on)

→ **Take Dissertation Progress Evaluation (every semester) and submit the result with report and scheduled plan through MUGR online system** (by Major Advisor)

→ **Complete this checklist:**
- ✓ At least 90-day dissertation conduct
- ✓ Complete all courses with GPA ≥ 3.00
- ✓ Have one research article publication (or more according to requirements by external scholarship agency)
- ✓ Complete trainings for at least 4 soft skills
- ✓ Approved by Dissertation Advisory Committee (DAC)
- ✓ Submit dissertation draft to all DAC members within 15 days

→ **Submit GR2 form (Dissertation Defense Exam Committee Appointment) (3-4 members + 2 External Experts) through MUGR online system**

→ **Submit the result to MUGR within 15 days**
- ✓ Submit Abstract for approval by MUGR Language Center
- ✓ Submit revised/final dissertation within indicated timeframe
- ✓ Students with external scholarship must complete all the project closure processes
- ✓ Submit GR5 form (Degree Request)

Ph.D. Dissertation Process for Students Holding M.Sc.

Complete the Qualifying Exam (QE)
- Submit GR35 (QE Committee Appointment) (15 days before QE)
- Take the Exam
- Submit the result to MUGR (within 1st Year)

Select Dissertation Major Advisor and enroll "MBMB 604" & "MBMB 799" (Semester 2 Year 1)

Ask MBMB Education Officer to issue Dissertation Proposal Exam Committee (3 members selected) (MBMB Internal Process)

Complete the Dissertation Proposal Exam (at the end of MBMB 604) (Semester 2 Year 1)

Submit GR1 form (Dissertation Title and Dissertation Advisory Committee Appointment) (3-4 members selected) through MUGR online system

Submit "Human / Animal Model Ethics" form within 90 days through MUGR online system

Enroll "MBMB 799" (every semester)

Take Dissertation Progress Evaluation (every semester) and submit the result with report and scheduled plan through MUGR online system (by Major Advisor)

Complete this checklist:
- ✓ At least 90-day dissertation conduct
- ✓ Complete all courses with GPA ≥ 3.00
- ✓ Have one research article publication (or more according to requirements by external scholarship agency)
- ✓ Complete trainings for at least 4 soft skills
- ✓ Approved by Dissertation Advisory Committee (DAC)
- ✓ Submit dissertation draft to all DAC members within 15 days

Submit GR2 form (Dissertation Defense Exam Committee Appointment) (3-4 members + 2 External Experts) through MUGR online system

- ✓ Submit the result to MUGR within 15 days
- ✓ Submit Abstract for approval by MUGR Language Center
- ✓ Submit revised/final dissertation within indicated timeframe
- ✓ Students with external scholarship must complete all the project closure processes
- ✓ Submit GR5 form (Degree Request)

3.5 Course Registration and Fee Payment for Graduate Students, Academic Year 2025, Faculty of Graduate Studies, Mahidol University

	Registration Process	1st Semester	2nd Semester	Summer
1	Semester start and end dates	Aug 4 - Dec 15, 2025	Jan 5 - May 11, 2026	Jun 1 - Jul 27, 2026
2	Consultations with advisors for course registration	From Jun 23, 2025	From Nov 24, 2025	From May 4, 2026
3	Registration period via Student Service System on https://graduate.mahidol.ac.th and registration fee payment 3.1 Regular registration	Jun 30 - Jul 11, 2025	Dec 1 - Dec 12, 2025	May 11 - May 15, 2026
	3.2 Last day of payment for tuition fees during the regular registration period (If the payment is made after this deadline, the students will be charged 2,000 baht for late registration.)	Aug 1, 2025 (before 10:00 p.m.)	Jan 2, 2026 (before 10:00 p.m.)	May 29, 2026 (before 10:00 p.m.)
	3.3 Late registration (The students will be charged for 2,000 baht)	Aug 4 - Aug 15, 2025	Jan 5 - Jan 16, 2026	Jun 1 - Jun 5, 2026
	3.4 Add/Drop course registration (Tuition fee refund for course dropping excluding student who paid tuition fees in fixed-rate cannot refund)			
	3.5 Submission of credit refund request form for the dropped course(s) (during Add/Drop registration period) Remarks: The refund request must be proceeded within the specified period. All requests submitted after the specified period will not be considered.	Aug 4 - Aug 29, 2025	Jan 5 - Jan 30, 2026	Jun 1 - Jun 19, 2026
	3.6 Last day of payment for tuition fees and fines for late registration (The students will be charged for 2,000 baht)	Aug 29, 2025 (before 10:00 p.m.)	Jan 30, 2026 (before 10:00 p.m.)	Jun 19, 2026 (before 10:00 p.m.)
	3.7 Course withdrawal (No refund)	Aug 16 - Nov 28, 2025	Jan 17 - Apr 24, 2026	Jun 6 - Jul 17, 2026
4	Programs verifies number, list of students registered for each subject and payment status on GRAD-MIS system under "Registration" menu http://10.2.3.7/MIS/search/Page_TH/register_menu.aspx	From Jul 14, 2025	From Dec 15, 2025	From May 18, 2026
5	The Faculty of Graduate Studies submits the list of students who do not register for courses or register without the tuition fee payment for student status suspension.	Sep 29, 2025	Mar 2, 2026	---
6	Course evaluation	Dec 1 - Dec 29, 2025	Apr 27 - May 25, 2026	Jul 13 - Aug 10, 2026
7	Submission of course evaluation summary for the semester to Faculty of Graduate Studies	Within Jan 5, 2026	Within Jun 1, 2026	Within Aug 3, 2026
8	Grade Report announcement on https://graduate.mahidol.ac.th (Student Service System)	From Jan 6, 2026	From Jun 2, 2026	From Aug 4, 2026

3.6 Professional and Personal Skills Development

At present, it is widely accepted that successful students both in work and personal life have some knowledge they acquire outside of school. Since professional and personal skills development or soft skills are as important as the knowledge in school, the dean of the Faculty of Graduate Studies, with the approval of the Faculty of Graduate Studies Policy Committee, saw it beneficial to provide soft skills development to students in the graduate programs in order to comply with the Faculty of Graduate Studies' strategies that develop the graduates' qualities to meet the international standards. The Deputy Dean for Student Affairs formed the Student Affairs Committee consisting of representatives of all sections to set up soft skills development guideline under the project – Professional and Personal Skills Development.

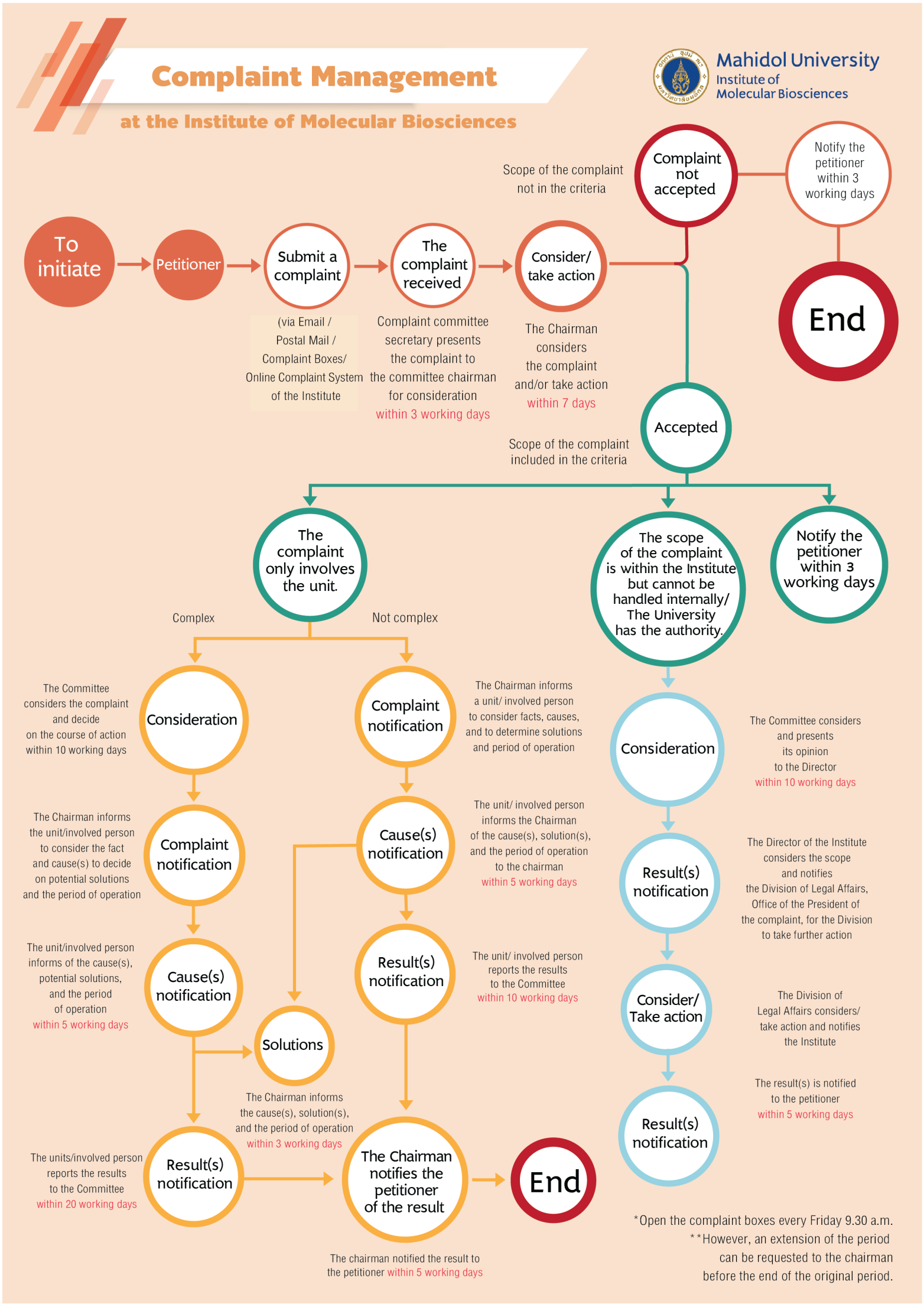
The standard professional and personal skills required for the graduate students in Mahidol University are:

1. Communication and Language Skills
2. Leaderships and Management skills
3. Creative and Innovative Skills (For students with ID 61 onwards)
4. Digital Literacy Skills
5. Health Literacy Skills (For students with ID 62 onwards)
6. Entrepreneurial Literacy Skills (For students with ID 62 onwards)

Policies

- Graduate students with student ID no. 59xxxxx and later must pass the Professional and Personal Skills Development to qualify for graduation. Every candidate student must pass at least 1 activity in every required skills.
- The activity students take part in will be reported in their transcript.
- Students will get a certificate for every activity attended.
- Students can register for the activities through the website which will have a schedule of activities for the students to choose.
- If the students' program has activities or courses that are similar to the required skills in this project, they can send a request form to the student affairs committee under the committee's agreement meeting will be held every 2 months.
- The maximum of comparable skills in the students' program are 2 skills, one of which the student shall take in the Faculty of Graduate Studies.

3.7 Student Appeals / Counseling



Mahidol University
Faculty of Graduate Studies
MUGR
Mahidol University
Faculty of Graduate Studies
Faculty of Graduate Studies,Mahidol University
MUGR Mental Health Counseling Service
Free
of Charge
• Advance booking
• Wait for our confirmation and appointment email
Contact number for urgent cases :
International Students
Ms.Lalita Adulyakittiphaisan : 08 1269 6526
Advance booking at Google Form

3.8 MB and MBMB Support Staff

Arpa (Boom)
MBMB Education Officer

Siriporn (Yui)
MBMB Education Officer

Prapan (Ball)
MBMB Education Officer

Yarnyong (Yong)
AV Technical Officer

Pinjutha (Noey)
AV Technical Officer

Kaewklao (Fai)
Foreign Relations Officer

Sujit (Gie)
IT Technical Officer

Umnaj (Tua)
Equipment Custodian

Sasithorn (Nook)
Equipment Custodian

Pannaphan (Pangpond)
Equipment Custodian

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@mahidol.ac.th
(ext. 1255)

Naraporn (Ta)
Equipment Custodian

Chanikarn (Pooh)
Equipment Custodian

Potchaman (Bow)
Equipment Custodian

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02-441-9003-7

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