UNIVERSITI SAINS MALAYSIA

Pusat Pengajian Sains Kesihatan
School of Health Sciences
Committed to Health

MASTER IN
BIOMEDICAL SCIENCE
MIXED MODE PROGRAMME 2025/2026

CANDIDATE PERSONAL INFORMATION

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Current Address:

Permanent Address:

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Number:

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October 2025

School of Health Sciences
Universiti Sains Malaysia

Background of School of Health Sciences

The treatment and prevention of diseases have long been the foundation of conventional thoughts in matters of health. These thoughts have undergone changes, albeit slowly, towards the concept of more holistic management of health, based not only on the biology of diseases but also incorporating aspects of sociological sciences, behavior and the environment. This concept of health gives cognizance not only to patients but to the healthy individual as well.

Rapid advancement in technology has helped to hasten these changes in concepts, methodologies and the way health services are disbursed. These facts are taken into account during the development of programmes at the School of Health Sciences with the expressed intention of producing graduates who would be able to compete in the job market both locally and at the international level.

With these principles as its foundations, the School of Health Sciences USM was established at the Health Campus in Kelantan on the 1st of November 1999. The School's main objective is to holistically expand the Health Sciences disciplines. Within the ambit of Health Sciences are included areas of specialties like Biomedicine, Dietetics, Nursing, Forensic Science, Medical Radiation, Exercise and Sports Science, Audiology, Speech Pathology, Nutrition and Environmental Health. In the academic session 2007/2008, the School of Health Sciences reintroduced Diploma in Nursing which was previously offered under the School of Medical Sciences. Several other potential health related subjects will also be offered in due course. Thus the establishment of the School of Health Sciences is a direct effort by USM to help fulfil the national requirement for manpower in the areas of health and paramedical disciplines which is currently experiencing a severe shortage of trained personnel.

The 2025/2026 academic session is the 22nd for the School. Since the academic session 2002/2003, 21 batches of students have graduated from various programmes. The School saw another milestone with the introduction of Master of Science (Biomedicine) mixed mode programme in academic session 2014/2015 and Master of Science (Forensic Science) mixed mode programme in academic session 2015/2016.

Philosophy

The School of Health Sciences has a philosophy that values education as the driving force behind the progress and development of mankind. We are committed to producing graduates who are able to pursue their own goals and direction while contributing to the development of an industrialised and civilised Malaysia. To fulfil the above aspiration, the School provides an education that is sustainable, futures-oriented and globally focused.

The School adopts a diverse and comprehensive interdisciplinary wellness-based programme for educational, scientific and human capital development. The curriculum provides the foundation for intellectual inquiry as well as a pragmatic contribution focused on the wellness of individuals and communities. Therefore, the teaching-learning methods are focused on integrative problem-solving where students are encouraged to make group decisions that have a local emphasis with globalised consequences.

Thus, the School of Health Sciences is committed to the promotion of scholarship that has a foundation in scientific thinking, and professional interdisciplinary education supported by a

strong research culture. This will enable our graduates to respond to the challenges of the 21st century with a sense of social consciousness and accountability. Excellence is regarded as the foundation of this noble effort.

Vision of School of Health Sciences

We are committed to be a centre of excellence in health sciences towards the wellness of society through intellectual inquiry, creativity, innovation and dissemination of knowledge.

Mission of School of Health Sciences

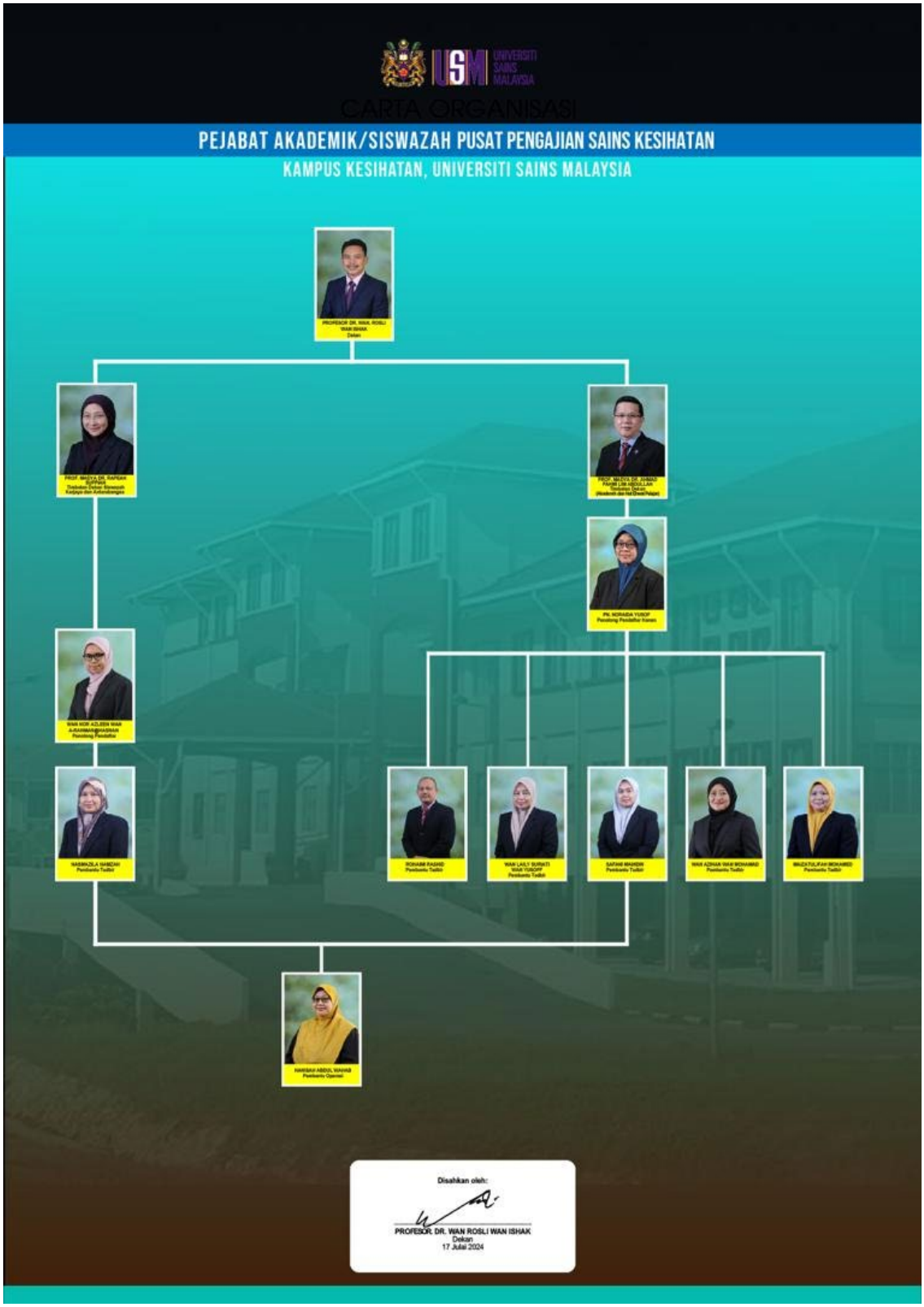
To achieve and maintain excellence in Health Sciences by:

- Producing graduates with a high level of intellectual inquiry and professionalism.
- Developing graduates with a strong sense of ethics and commitment to humanity.
- Transforming knowledge into an instrument for sustainable development and wellness of society.

Organizational Chart of The School of Health Sciences Dean's office

Organizational Chart of The School of Health Sciences Administrative office

Organizational Chart of The School of Health Sciences Academic/Postgraduate office



School of Health Sciences Staff Directory
https://health.usm.my/index.php/aboutus/directory/all-staff

Health Campus Website (Departments & Facilities)
https://www.usm.my/en/my-usm/campuses/health-campus

MASTER IN BIOMEDICAL SCIENCE
MIXED MODE PROGRAMME

Introduction

The Master in Biomedical Science Mixed Mode Programme is offered to produce biomedical scientists to meet the demand of the health industries. Based on our fields of expertise and inputs from key stakeholders, this programme is designed to offer advanced courses in cell biology, pharmacotoxicology and infection diseases. In addition, candidates will be guided to acquire critical thinking skills, good ethical practices and high professionalism in biomedical research. Essentially, the programme aspires to generate competent master in biomedical science graduates who are ready for PhD endeavour. The programme is fully accredited by Malaysian Qualifications Agency (MQA) with Malaysian Qualifications Register (MQR) reference number MQA/SWA11034.

Programme Educational Objectives (PEO)

In line with the mission of School of Health Sciences, the Master in Biomedical Science provides exemplary Biomedical Science education with the following programme educational objectives:

PEO1: Nurture intellectual and professional graduates with theoretical knowledge and practical experience

PEO2: Produce responsible graduates with high ethical standards and good communication skills

PEO3: Transforming knowledge in biomedicine for sustainable development and social well-being

Programme Learning Outcomes (PLO)

Upon completion of the programme, graduates should be able to:

PLO1: Apply comprehensive theoretical, conceptual and practical knowledge to practice, evaluate and give opinion in the field of biomedicine

PLO2: Utilize scientific skills, innovative and creative thinking to generate ideas and strategies for problem solving and decision making involving issues related to biomedicine

PLO3: Perform higher levels of laboratory procedures and conduct research under minimum supervision in the field of biomedicine

PLO4: Demonstrate social skills and responsibility, team work and sensitivity towards biomedicine related issues in the society

PLO5: Present biomedicine related information and research findings effectively via oral and written communication

PLO6: Demonstrate skills in information and communication technology (ICT) to improve practices in medical and research laboratories

PLO7: Demonstrate skills to apply and interpret numerical data, visuals and graphics to present information, research findings and results in Biomedicine field

PLO8: Apply effective leadership knowledge and understanding in the effort to contribute to the advancement of Biomedicine field

PLO9: Enhance self-development through lifelong learning using information management skills in academic and career development

PLO10: Apply management skills and entreprenurial mindset in daily activities and planning involving the field of Biomedicine

PLO11: Demonstrate high personal values and attitude, ethical and adhering to legal principles and professional practice codes in Biomedicine field

Programme Structure

The programme is structured to provide fundamental knowledge and skills in biomedical researches, as well as specialised research disciplines based on inclinations of candidates.

This Master in Biomedical Science Mixed Mode Programme will be conducted in one year. Candidates are required to complete 40 credit units. The programme comprises 50% (20 units) taught courses and 50% (20 units) research. The distribution of credit units and division of subjects are listed as follows:

Components	Semester 1		Semester 2		KSCP Semester	
	Course	Unit	Course	Unit	Course	Unit
Taught Courses (20 units)	GTB513 Cell Biology and Genetics	3				
	GTB514 Biochemistry	3				
	GTB515 Pharmacology and Toxicology	3				
	GTB516 Medical Microbiology	3				
	GTB521 Qualitative and Quantitative Research Methods	3				
	GTB522 Research Ethics	2				
	GTB523 Techniques in Biomedicine Laboratory	3				
Research (20 units)			GTB540 Research Project	20		
Total Unit		**20**		**20**		

KSCP: Kursus semasa cuti panjang (courses during long semester break)

Courses Description

1. GTB513 Cell Biology and Genetics (3 units)

Course Synopsys

This course explores core concepts of cell biology and genetics, emphasising cell functions, genetic inheritance and bioresponses. It integrates value-based education that foster integrity, accountability and collaborative problem solving using digital tools to address human health and well-being challenges which align with the global efforts to promote sustainable human development. This course will be conducted through lectures, tutorials and practicals. Students will be assessed through assignments, presentations, discussion, tests and final examination.

Course Learning Outcome (CLO) & PLO

CLO1: Demonstrate in-depth and frontier knowledge and understanding in the field of cell biology and genetics as well as cell developmental process (PLO1)
CLO2: Perform practicals critically and creatively on skills related to cell biology and genetics as well as report preparation (PLO3)
CLO3: Demonstrate ability to conduct credible problem-solving skills to resolve complex issues and questions in the filed of cell biology and genetics (PLO2)
CLO4: Applying collaborative competency to communicate and interact effectively with peers in the study of cell biology and genetics (PLO5)
CLO5: Show interpersonal skill in discussion on current issues of cell biology and genetics (PLO4)
CLO6: Demonstrate ability to select and apply appropriate digital and analytical tools to solve problems in the field of Cell Biology and Genetics with honesty and accountability (PLO6)

Topics

1. Current Review of Tissue and Cell
2. Regulation of Cell Development and Cell Mortality
3. Cellular microenvironment and signal transduction
4. Specialised human cell biology- Nerve and muscle cells
5. Specialised human cell biology – Blood and germ cells
6. Cancer cell biology and stem cells
7. Latest Development in cancel cells and stem cell research
8. Principle of Mendelian Inheritance
9. The Chromosome basis of inheritance
10. Cytogenetics
11. Structure and function of DNA and RNA
12. Structure and function of genes in cell’s development
13. Cancer genetics
14. Somatic cell nuclear transfer (SCANT)
15. Bioinformatic application for Genetics and Cells Analysis

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2. GTB514 Biochemistry (3 units)

Course Synopsys

This course provides core knowledge for students to gain an in-depth understanding of biochemistry. It covers topics in biochemistry such as the bioinformatics in biochemistry, protein expression and characterization, protein engineering, protein-protein/ protein-ligand interactions, cell signaling molecules and its receptors, its functions, pathway, signal transduction and signaling in development and differentiation as well as detailed insight into recent research methods, knowledge and findings in biochemistry. The elements of honesty and SDG 3 are incorporated into the course through the practical report and assignment, respectively. The course will be conducted through lectures, practical and tutorials. The students will be assessed through assignments, presentations, tests and final examination.

Course Learning Outcome (CLO) & PLO

CLO1: Demonstrate in-depth and frontier knowledge and understanding in the field of biochemistry (PLO1)
CLO2: Perform practical critically and creatively on skills related to biochemistry study and prepare report honestly (PLO3)

CLO3: Demonstrate the ability to apply critical problem-solving skills and anticipatory thinking efficiency to effectively address complex issues and questions in biochemistry, with a focus on advancing health and well-being (PLO2)
CLO4: Demonstrate ability to communicate and interact effectively with peers in the field of biochemistry (PLO5)
CLO5: Demonstrate ability to select and use suitable digital and analytical tool techniques to resolve problems in the field of biochemistry (PLO6)

Topics

1. Protein-protein interaction
2. Protein post-translational modifications
3. Protein expression, purification and biochemical analysis
4. Bioinformatics in biochemistry
5. Protein engineering and design
6. Signalling Molecule, Cellular Receptor and intracellular signaling pathway
7. Cell cycle regulations
8. Mechanism of cell death
9. Cancer cell and tumour suppressor gene signalling
10. Signalling in cell cycle regulation

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3. GTB515 Pharmacology and Toxicology (3 units)

Course Synopsys

This course provides core and advanced knowledge in understanding of pharmacology dan toxicology. It includes information on research and recent findings, with issues in health sustainability, according to relevant Malaysian Standard and code of practices.. Teaching and learning will consist of lectures, tutorials, practical, and e-learning. Assessment will consist of tests, assignment, practical reports, presentation, seminar, and final examination.

Course Learning Outcome (CLO) & PLO

CLO1: Comprehensively describe in the field of pharmacology and toxicology (PLO1)
CLO2: Implement practicals that include techniques involved in pharmacological and toxicological studies, as well as the preparation of reports (PLO3)
CLO3: Applying advanced knowledge critically, honestly and integratively in research and problem solving within pharmacology and toxicology practice, based on relevance Malaysian standard and code of practices (PLO2)
CLO4: Demonstrates communication skills during discussions and presents current topics and issues in the field of pharmacology and toxicologist (PLO5)

Topics

1. Introduction: Drugs, toxins, pharmacology and toxicology
2. Principles of pharmacokinetics
3. Pharmacodynamic model
4. Pharmacokinetic-pharmacokinetic integration model
5. Ethnopharmacology
6. Pharmaceutical analysis
7. Methods in pharmacognosis
8. Target organ / non-organ toxicity
9. Molecular toxicology
10. Advanced toxicological analysis
11. The latest principles of toxicological experiments and risk assessment
12. Toxicology safety assessment

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4. GTB516 Medical Microbiology (3 units)

Course Synopsys

This course introduces students to advance knowledge in immunology, immunopathology, epidemiology, pathogenesis, diagnosis, chemotherapy, control and prevention of various infectious diseases agents. The course will be conducted through seminar, PBL-discussion, lecture, and tutorial. Student will be assessed based on assignment, oral presentation, test and final examination.

Course Learning Outcome (CLO) & PLO

CLO1: Describe comprehensively on advanced medical microbilogy, including the aspects of epidemiology, interaction between parasites and hosts, diagnostics and chemotherapy, vaccines and immunotherapy and the role of immune system in the infectious diseases pathogenesis (PLO1)
CLO2: Apply knowledge of advanced medical microbiology in research and problem solving of infectious diseases (PLO2)
CLO3: Present on topics and current issues in advanced medical microbilogy and trends of infectious diseases with honesty, integrity and with the sense of responsibility (PLO5)

Topics

1. The role of immune system in pathogenesis and immunopathology mechanism of infectious diseases
2. Immunopathology and pathology characteristics of infectious diseases and the pathology identification diagnostics test
3. Immunological principles of vaccination, current research, vaccine production guidelines and immune therapy
4. Challenges of vaccine implementation and immune therapy for the control and prevention of infectious diseases
5. Epidemiology and pathogenesis of infectious diseases by bacteria
6. Diagnosis and chemotherapy of infectious diseases by bacteria
7. Epidemiology and pathogenesis of viral infections
8. Diagnosis and chemotherapy of infectious diseases by viruses
9. Epidemiology and pathogenesis of parasitic disease
10. Diagnosis and chemotherapy of infectious diseases by parasites
11. The epidemiology and pathogenesis of fungal infections
12. Diagnosis and chemotherapy of infectious diseases by fungi

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5. GTB521 Qualitative and Quantitative Research Methods (3 units)

Course Synopsys

This course provides a comprehensive foundation in research methodology, specifically designed for postgraduate students in the biomedical sciences. It integrates both qualitative and quantitative research paradigms, equipping students with the essential knowledge and skills required to design, conduct, analyse, and effectively disseminate research findings. The course will be conducted through a blend of lectures and student-centred learning activities aimed at fostering active participation and critical thinking. In addition, the course emphasizes the cultivation of good values, including adaptability and rationality, in the research process. Student performance will be evaluated through test, assignment, presentation, and the preparation of a research proposal.

Course Learning Outcome (CLO) & PLO

CLO1: Demonstrate in-depth knowledge and understanding in research methodology (PLO1)
CLO2: Apply strong problem-solving skills to address complex issues and questions in qualitative research (PLO2)
CLO3: Demonstrate commitment to lifelong learning and personal development by applying adaptability value in research management and analysis (PLO9)
CLO4: Demonstrate management and entrepreneurial skills with rationality in the preparation of a research proposal (PLO10)
CLO5: Select and use suitable numeric and analytical skills to solve problems in quantitative research (PLO7)

Topics

1. Overview of research methodology

2. Qualitative inquiry
3. Quantitative inquiry
4. Data management and analysis
5. Dissemination of research outputs

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6. GTB522 Research Ethics (2 units)

Course Synopsys

This course provides fundamental knowledge of basic principles and ethical standards in biomedical research. It covers the ethics of using animals and humans as research subjects in order to protect human health and well-being, biodiversity, and ecosystems. The course will also discuss various research-related issues such as data management, publication, intellectual property and, biosafety and biosecurity. Students will also be exposed to various examples and consequences of research misconduct and conflicts of interest, as well as strategies for dealing with these issues, to ensure that they understand the importance of conducting research honestly and with integrity. The course will be conducted through lectures, visit to ARASC, and discussions. Students will be assessed through assignments, tests, presentations, report and group discussions.

Course Learning Outcome (CLO) & PLO

CLO1: Demonstrate in-depth knowledge and understanding of the principles and importance of ethics and professionalism in research (PLO1)
CLO2: Demonstrate leadership qualities and teamwork in presenting proposal for ethics application (PLO4)

CLO3: Demonstrate ethical and professional attitudes in discussing biomedical research issues so that they become responsible to self, family, society and nation, and understand and practice the National Principle (Rukun Negara) (PLO11)
CLO4: Demonstrate skills and knowledge in the application of ethics approval for the use of animal and human subjects in research (PLO9)
CLO5: Demonstrate management and entrepreneurial skills in the management of research facilities and laboratory animal services (PLO10)
CLO6: Demonstrate leadership qualities in discussing biomedical research issues (PLO8)

Topics

1. Introduction: The importance of guidelines and ethics in Biomedical research
2. Guidelines and ethics for the use of animal subjects in research based on the 3R principles (Replacement, Refinement, Reduction)
3. Guidelines and ethical considerations for the use of human subjects in research
4. Animal Ethics Committee and Human Ethics Committee
5. Animal Research And Service Centre (ARASC)
6. Publication and authorship
7. Plagiasrism
8. Intellectual property
9. Conflict of interest
10. Data acquisition and management
11. Biosafety and Biosecurity

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7. GTB523 Techniques in Biomedical Laboratories (3 units)

Course Synopsys

This course provides knowledge on equipment, sources and techniques used in biomedical research. It also introduces a systematic approach to current biomedical research using analysis of selected topics to focus on the process of research discovery that is relevant to the understanding of human health and diseases. The course will be conducted through lectures, practical sessions and demonstrations. The students will be expected to engage responsibly and with respect, will be assessed through practical reports, assignment, discussion and practical test.

Course Learning Outcome (CLO) & PLO

CLO1: Using biomedical techniques in biomedical studies and report preparation (PLO3)
CLO2: Apply knowledge of equipment, resources and techniques in biomedicine and be able to solve related problems (PLO2)
CLO3: Interpret the findings critically and responsibly in assignments related to studies and techniques (PLO4)
CLO4: Demonstrate leadership and respect in group and practical work (PLO8)

Topics

1. Course introduction
2. Types of research and testing in biomedical fields
3. Biological samples sampling technique
4. Cellular and molecular techniques and their applications
5. Proteomics techniques and their applications
6. Genomics techniques and their applications

Teaching Staff

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8. GTB540 Research Project (20 units)

Course Synopsys

This course provides the opportunity to the student to carry out research project related to biomedicine under the supervision of a lecturer. Besides doing the research project, this course also exposes the students to reference management software and techniques related to thesis writing. This course is conducted by supervision of research work, discussion and workshop. Students are evaluated through thesis, presentation and effort.

Course Learning Outcome (CLO) & PLO

CLO1: Demonstrate integrated problem-solving competency in planning and conducting a research project in biomedicine (PLO3)
CLO2: Demonstrate the ability to appraise and solve problem related to research by using creative and critical thinking skills (PLO2)
CLO3: Demonstrate communication skills in the presentation of research project findings (PLO5)
CLO4: Demonstrate social skills while performing tasks with others in the process of data collection, discussion and problem solving (PLO4)
CLO5: Conduct research projects ethically and responsibly via collaborative competency (PLO11)
CLO6: Demonstrate ability to select and use suitable digital tools to disseminate research output in the research project competently (PLO6)
CLO7: Demonstrate numeracy skills in research data analysis ethically (PLO7)

Topics

1. Research project briefing
2. Research proposal and findings presentation briefing
3. E-learning, research seminars and workshops

Teaching Staff

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Candidature Period and Teaching Approaches

The study duration to complete a full-time Master in Biomedical Science Mixed Mode programme is **one year (minimum period) and 3 years (maximum period)**. The total number of credit units to achieve is 40, consisting of 7 taught courses and 20 units of dissertation. The modes of teaching include face-to-face sessions, lectures, practical sessions, tutorials, seminars, assignments, case studies, dissertation and projects.

Minimum Admission Requirements

The minimum admission requirements for the Master in Biomedical Science Mixed Mode programme are as follows:

i. Bachelor of Science (Biomedicine, Applied Science, Health Science, Medicine or other related and recognized degrees) with CGPA ≥ 2.75 **OR**

ii. Bachelor degree as in section (i) with CGPA 2.50 - 2.74 AND research experience OR working experience in related field for at least one (1) year OR two (2) academic publications in the field applied for OR obtained at least a B in major courses OR at least a B+ in final year research project **OR**

iii. Bachelor degree as in section (i) with CGPA 2.00 – 2.49 AND research experience OR working experience in related field for at least five (5) years AND two (2) academic publications in the field applied for OR obtained at least a B+ in major courses OR at least an A- in final year research project.

iv. A foreign student has to produce a copy of English proficiency result. The minimum English language requirement are as follows:

- A minimum score of 35 in Internet-based TOEFL (Test of English as a Foreign Language) ; OR
- A minimum score of 5.0 in IELTS (International English Language Testing System); or
- A minimum score of 154 in Cambridge English Advance (CAE); or
- A minimum score of 154 in Cambridge Proficiency Advance (CPE); or
- A minimum score of 36 in Pearson Test of English (PTE); or

- English is the candidate's mother tongue or National Language; or
- The candidate graduated from an Institution of Higher Learning in which the medium of instruction at Bachelor and Master level is English; or
- English courses offered by British Council (The level of qualification and the relevant courses are to be identified by the University Postgraduate Studies Council); or
- English courses from selected Malaysian public/private University or institution (The level of qualification and the relevant courses are to be identified by the University Postgraduate Studies Council)

Application

Admission application form is available at the official website of Institute of Postgraduate Studies, Universiti Sains Malaysia (www.ips.usm.my). The final decision is subjected to the consideration of the University.

For further enquires related to the programme, please contact Office of Postgraduate Studies at 09-7677525 or 09-7677522, or Coordinator, Master in Biomedical Science mixed mode programme (Associate Professor Dr. See Too Wei Cun) at 09-7677537 or stweicun@usm.my.

Registration and Payment of Fees

Payment of fees by successful candidate has to be completed after course registration through campus online system (campusonline.usm.my). The total tuition fee is subjected to the total registered credit units for that semester.

Payment of fees can be completed at Bursary, in the form of cash or bank draft. The fee paid cannot be refund if the student withdraws from the course or fails or terminated from the course.

Candidature Period

Minimum candidature period is one year and the maximum period is 3 years. After the completion of maximum candidature period, the candidate can apply to extend the study by a written application to the Dean, School of Health Sciences through the programme coordinator for the consideration of the University.

Evaluation, Marking and Examination

Students of the Master in Biomedical Science mixed mode programme will be evaluated based on the evaluation system practised in USM, that is via examination, coursework and research project.

Examination will be held at the end of every semester. Students have to sit for the examination of the courses that they have registered. Students have to settle all due fees and fulfill the standing requirements for lectures/tutorial/practical and other requirements before being allowed to sit for the examination of courses they registered. Course evaluation will be determined based on continuous assessments of coursework components and the final examinations. Coursework evaluation includes participation during tutorials, tests, projects and assignments.

(a) Duration of Examination

Evaluated Courses	Examination Duration
2 units	1 hour for coursework of more than 40%
2 units	2 hours for coursework of 40% and below
3 units or more	2 hours for coursework of more than 40%
3 units or more	3 hours for coursework of 40% and below

(b) Barring from Examination

Students will be barred from sitting the final examination if they do not satisfy the course requirements, such as absence from lectures and tutorials, and have not completed/fulfilled the required components of coursework. Students will also be barred from sitting the final examination if they do not settle the academic fees.

Courses that are barred will be graded as 'X'.

(c) Grade Point Average System

Student academic achievement for registered course will be graded as follows:

Alphabetical Grade	Grade Points	Marks
A	4.00	80-100
A-	3.67	70-79
B+	3.33	64-69
B	3.00	58-63
B-	2.67	52-57
C+	2.33	46-51
C	2.00	40-45
C-	1.67	36-39
D+	1.33	32-35
D	1.00	28-31
D-	0.67	25-27
F	0.00	0-26

Student achievement in each semester is calculated based on **Grade Point Average (GPA)** obtained from all courses registered in the semester. GPA is the indicator to determine the academic performance of students in any semester.

CGPA is the **Cumulative Grade Point Average** accumulated by a student from one semester to another during the years of study.

Example of calculation of GPA and CGPA:

	Course	Unit	Grade Point (GP)	Grade (G)	Total GP
Semester I	ABC XX1	4	3.00	B	12.00
	ABC XX2	4	2.33	C+	9.32
	BCD XX3	3	1.67	C-	5.01
	CDE XX4	4	2.00	C	8.00
	EFG XX5	3	1.33	D+	3.99
	EFG XX6	2	2.67	B-	5.34
	Total	20			43.66

GPA = 43.66/20 = 2.18

	Course	Unit	Grade Point (GP)	Grade (G)	Total GP
Semester II	ABC XX7	3	1.00	D	3.00
	ABB XX8	4	2.33	C+	9.32
	BBC XX9	4	2.00	C	8.00
	BCB X10	4	2.67	B-	10.68

	XYZ XX1	3	3.33	B+	9.99
		18			40.99

GPA = 40.99/18 = 2.28

CGPA = Total accumulated GP/ Total accumulated units
= (43.66 + 40.99) / (20 + 18)
= 84.65/38
= 2.23

In the above example, the CGPA is calculated as the total grade points accumulated for all the registered courses and divided by the total number of the registered units.

Graduation Criteria

Candidate must fulfil the following criteria to graduate:

- Pass all courses with a minimum of Grade C+, and
- Pass research project with a minimum of Grade C+, and
- Obtain CGPA 3.0 and above at the end of the study period

Postponement of Study

Candidate is allowed to postpone his/her study by providing reasonable justifications. However, whether the approval of the postponement will be accompanied with or without penalty is under the prerogative of the University.

Termination of Candidature

Candidate can withdraw from the programme by writing to Dean of the School of Health Sciences via Programme Coordinator to be considered by the University.

Candidature shall be terminated by Universiti Sains Malaysia for the following reasons:

- Candidature has already exceeded the maximum allowed period *or*
- Candidate does not fulfil the graduation criteria as previously stated *or*
- Candidate has broken the rules and regulations of the university and disciplinary actions have been taken against him/her
- Candidate has been confirmed to commit crime

- Candidate fails to renew registration as a student for each semester without the approval of the university

Degree Conferment

Candidate is qualified to be conferred a degree in Master in Biomedical Science after successfully completed the study and satisfy all the programme requirements as well as fulfil the graduation criteria as stated by the University.

Interpretation

All information stated in this Guide Book only serves as a guide. Amendments to the Guide Book will be made without notice subjected to the approval or endorsement that will be determined by the University from time to time.

ACADEMIC CALENDAR - ACADEMIC SESSION 2025/2026

FOR ALL SCHOOLS (EXCEPT FOR SCHOOL OF MEDICAL SCIENCES AND SCHOOL OF DENTAL SCIENCES)

Main Campus : Registration for New Student (26 - 28 September 2025) / **Orientation Week (29 September - 04 October 2025)
Engineering Campus : Registration for New Student (28 September 2025) / **Orientation Week (29 September - 04 October 2025)
Health Campus : Registration for New Student (30 September 2025) /Orientaion Week (30 September - 04 October 2025)**

SEM	WEEKS	ACTIVITIES	DATE	REMARKS
ONE	1	Teaching & Learning (T&L 7 Weeks)	Monday, 06.10.2025 - Sunday, 12.10.2025	
	2		Monday, 13.10.2025 - Sunday, 19.10.2025	
	3		Monday, 20.10.2025 - Sunday, 26.10.2025	20.10.2025, Monday - Deepavali**
	4		Monday, 27.10.2025 - Sunday, 02.11.2025	
	5		Monday, 03.11.2025 - Sunday, 09.11.2025	
	6		Monday, 10.11.2025 - Sunday, 16.11.2025	
	7		Monday, 17.11.2025 - Sunday, 23.11.2025	
	8	Mid Semester Break (1 Week)	Monday, 24.11.2025 - Sunday, 30.11.2025	
	9	Teaching & Learning (T&L 7 Weeks)	Monday, 01.12.2025 - Sunday, 07.12.2025	
	10		Monday, 08.12.2025 - Sunday, 14.12.2025	
	11		Monday, 15.12.2025 - Sunday, 21.12.2025	
	12		Monday, 22.12.2025 - Sunday, 28.12.2025	25.12.2025, Thursday - Christmas Day
	13		Monday, 29.12.2025 - Sunday, 04.01.2026	01.01.2026, Thursday - New Year of 2025
	14		Monday, 05.01.2026 - Sunday, 11.01.2026	
	15		Monday, 12.01.2026 - Sunday, 18.01.2026	
	16	Revision Week (1 Week)	Monday, 19.01.2026 - Sunday, 25.01.2026	
	17	Examination (3 Weeks)	Monday, 26.01.2026 - Sunday, 01.02.2026	01.02.2026, Sunday - Thaipusam
	18		Monday, 02.02.2026 - Sunday, 08.02.2026	02.02.2026, Sunday - Replacement leave for Thaipusam (Main & Engineering Campus)
	19		Monday, 09.02.2026 - Sunday, 15.02.2026	
	20	Mid Semester Break / Industrial Training (4 Weeks)	Monday, 16.02.2026 - Sunday, 22.02.2026	17 & 18.02.2026, Tuesday & Wednesday - Chinese New Year 19.02.2026, Thursday - 1st day of Ramadhan
	21		Monday, 23.02.2026 - Sunday, 01.03.2026	
	22		Monday, 02.03.2026 - Sunday, 08.03.2026	07.03.2026, Saturday - Nuzul Al-Quran
	23		Monday, 09.03.2026 - Sunday, 15.03.2026	
TWO	24/1	Teaching & Learning (T&L 7 Weeks)	Monday, 16.03.2026 - Sunday, 22.03.2026	21.03.2026 & 22.03.2026, Saturday & Sunday - Eid al-Fitr**
	25/2		Monday, 23.03.2026 - Sunday, 29.03.2026	23.03.2026, Monday - Replacement leave for Eid al-Fitr****
	26/3		Monday, 30.03.2026 - Sunday, 05.04.2026	
	27/4		Monday, 06.04.2026 - Sunday, 12.04.2026	
	28/5		Monday, 13.04.2026 - sunday, 19.04.2026	
	29/6		Monday, 20.04.2026 - Sunday, 26.04.2026	
	30/7		Monday, 27.04.2026 - Sunday, 03.05.2026	01.05.2026, Friday - Labour Day
	31/8	Mid Semester Break (1 Week)	Monday, 04.05.2026 - Sunday, 10.05.2026	
	32/9	Teaching & Learning (T&L 7 Weeks)	Monday, 11.05.2026 - Sunday, 17.05.2026	
	33/10		Monday, 18.05.2026 - Sunday, 24.05.2026	
	34/11		Monday, 25.05.2026 - Sunday, 31.05.2026	27 & 28.05.2026, Wednesday & Thursday - Eid al-Adha** 31.05.2026, Sunday - Wesak Day
	35/12		Monday, 01.06.2026 - Sunday, 07.06.2026	01.06.2026, Monday - Replacement leave for Wesak Day (Main & Engineering Campus) 01.06.2026, Monday - Yang di-Pertuan Agong's Birthday
	36/13		Monday, 08.06.2026 - Sunday, 14.06.2026	
	37/14		Monday, 15.06.2026 - Sunday, 21.06.2026	17.06.2026, Wednesday - Awal Muharram
	38/15		Monday, 22.06.2026 - Sunday, 28.06.2026	
	39/16	Revision Week (1 Week)	Monday, 29.06.2026 - Sunday, 05.07.2026	
	40/17	**Examination (2 Weeks) / Examination (3 Weeks)	Monday, 06.07.2026 - Sunday, 12.07.2026	07.07.2026, Tuesday - Georgetown World Heritage City Day 11.07.2026, Saturday - Penang Governor's Birthday
	41/18		Monday, 13.07.2026 - Sunday, 19.07.2026	
	42/19		Monday, 20.07.2026 - Sunday, 26.07.2026	
COURSES DURING LONG BREAK / SEMESTER BREAK	43/20	Long Semester Break / Industrial Training (10/11 Weeks)	Monday, 27.07.2026 - Sunday, 02.08.2026	
	44/21		Monday, 03.08.2026 - Sunday, 09.08.2026	
	45/22		Monday, 10.08.2026 - Sunday, 16.08.2026	
	46/23		Monday, 17.08.2026 - Sunday, 23.08.2026	
	47/24	*T&L	Monday, 24.08.2026 - Sunday, 30.08.2026	25.08.2026, Tuesday - Maulidur Rasul
	48/25		Monday, 31.08.2026 - Sunday, 06.09.2026	31.08.2026, Monday - National Day
	49/26	Examination	Monday, 07.09.2026 - Sunday, 13.09.2026	
	50/27		Monday, 14.09.2026 - Sunday, 20.09.2026	16.09.2026, Wednesday - Malaysia Day
	51/28		Monday, 21.09.2026 - Sunday, 27.09.2026	29 & 30.09.2026, Tuesday & Wednesday - Sultan of Kelantan's Birthday (Health Campus)
	52/29		Monday, 28.09.2026 - Sunday, 04.10.2026	

Timetable for Master in Biomedical Science by Mixed Mode Program
Semester 1, Academic Session 2025/26

This program will be conducted face-to-face/blended learning/online. Face-to-face lectures will be conducted at Bilik Tutorial Siswazah 1, School of Health Sciences, USM

Day/Time	8:00-9:00	9:00-10:00	10:00-11:00	11:00-12:00	12:00-1:00	1:00-2:00	2:00-3:00	3:00-4:00	4:00-5:00
Sunday	GTB514		GTB513	GTB521			Lab Practicals for GTB513/GTB514/ GTB515/GTB516 (MSA5)		
Monday		GTB514	GTB521	GTB513			GTB522		
Tuesday	GTB516			GTB515					
Wednesday		GTB516	GTB523		GTB515		LKM111 for International Students		
Thursday	GTB521	Lab Practical for GTB523 Location will be notified later							

Timetable for Teaching and Learning: Second and KSCP Semesters, 2025/26:

1. Candidate has to register GTB 540/20 before the start of the 2nd semester:

- GTB 540/20 is conducted during second and KSCP semesters
- Candidate has to find his/her supervisor
- Candidate has to present a research proposal
- Candidate is expected to have regular discussions/meeting with his/her supervisor
- Candidate performs research project during Semesters II and KSCP under supervision
- Candidate is expected to complete his/her dissertation and present the report in KSCP Semester

COURSE COORDINATORS

	Courses	Coordinator
1	GTB 513/3 Cell Biology and Genetics	Dr. Sabreena Safuan (sabreena@usm.my)
2	GTB 514/3 Biochemistry	Assoc. Prof. Dr. Few Ling Ling (fewling@usm.my)
3	GTB 515/3 Pharmacology and Toxicology	Assoc. Prof. Dr. Wan Amir Nizam Wan Ahmad (wanamir@usm.my)
4	GTB 516/3 Medical Microbiology	Dr Wong Weng Kin (wengkinwong@usm.my)
5	GTB 521/3 Qualitative and Quantitative Research Methods	Dr. Yvonne Tee Get Bee (yvonnetee@usm.my)
6	GTB 522/2Research Ethics	Assoc. Prof. Dr. Rapeah Suppian (rapeah@usm.my)
7	GTB 523/3 Techniques in Biomedical Laboratories	Dr. Nurhidanatasha Abu Bakar (natashaa@usm.my)
8	GTB 540/20 Research Project	Dr. Wong Weng Kin (wengkinwong@usm.my)

ADMINISTRATION

	Personnel	Email
1	Dean, School of Health Sciences: Professor Dr. Wan Rosli Wan Ishak	wrosli@usm.my
2	Deputy Dean (Research, Innovation & Community-Industry Engagement): Professor Dr. Hamid Jan Jan Mohamed	hamidjan@usm.my
3	Deputy Dean (Academic and Student Affairs): Associate Professor Dr. Ahmad Fahmi Lim Abdullah	fahmilim@usm.my
4	Deputy Dean (Postgraduate, Career and International): Associate Professor Dr. Rapeah Suppian	rapeah@usm.my
5	Chairperson, Biomedical Science Programme: Associate Professor Dr. Nurul Asma Abdullah	nurulasma@usm.my
6.	Coordinator, Master in Biomedical Science Mixed Mode Programme: Associate Professor Dr. See Too Wei Cun	stweicun@usm.my
7	Senior Chief Science Officer, PPSK: Mr. Md Lukmi Ismail	mdlukmi@usm.my
8	Senior Assistant Registrar (Academic), PPSK Madam Noraida Yusof	noraidakck@usm.my
9	Assistant Registrar (Postgraduate Studies), PPSK Ms Wan Nor Azleen Wan A Rahman	wanazleen@usm.my
10	Postgraduate Studies Unit, PPSK Madam Hasmazila Hamzah	hasmazila@usm.my

Notes

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