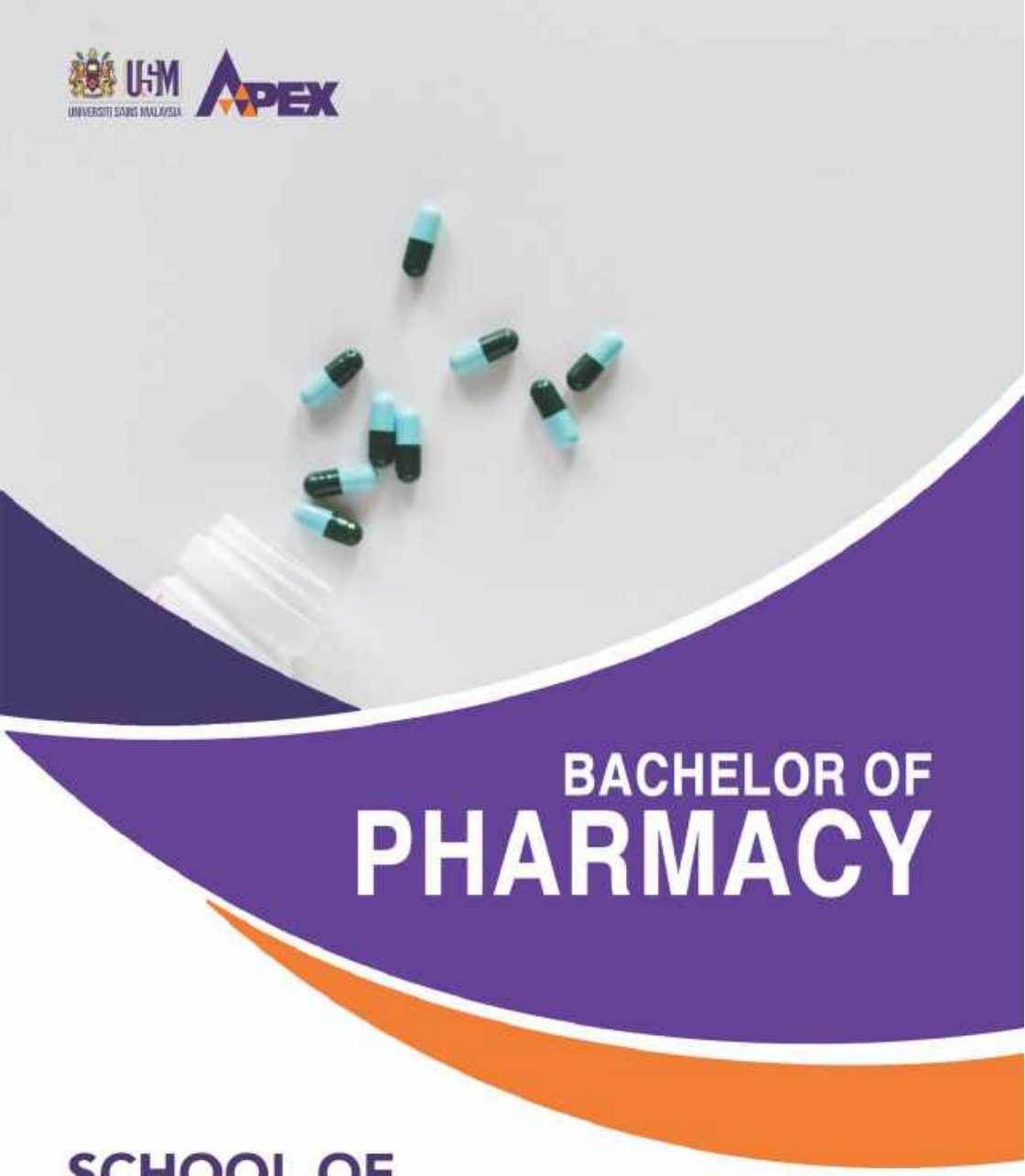


BACHELOR OF PHARMACY

SCHOOL OF PHARMACEUTICAL SCIENCES

Leading pharmacy education

SCHOOL OF PHARMACEUTICAL SCIENCES

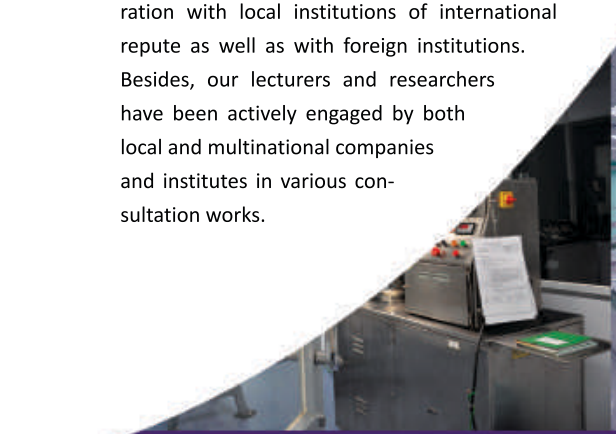
Leading pharmacy education

QS WORLD UNIVERSITY RANKINGS by subject

2018 WORLD RANK #51-100
Pharmacy & Pharmacology
#1 IN MALAYSIA

PHARMACISTS are health professionals who are trained in the practice of pharmacy and pharmaceutical sciences. They are well equipped with detailed knowledge of drugs to ensure safe and effective use of medications in patients. Pharmacists also utilise their scientific knowledge in the design and development of drugs. In Malaysia, pharmacists are employed not only in community pharmacy and hospital pharmacy but also in pharmaceutical industry, regulatory and drug management, academic activities and research.

THE SCHOOL OF PHARMACEUTICAL SCIENCES, established in 1972 and being the first pharmacy school in the country, is pioneering state-of-the-art integrated and multidisciplinary approach in teaching and learning encompassing six key disciplines, namely pharmaceutical chemistry, pharmaceutical technology, pharmacology, clinical pharmacy, social and administrative pharmacy and physiology to train and prepare our pharmacy graduates to keep up with the ever-changing pharmacy practice and stay relevant in the industry. Apart from lectures and lab works, the students have the opportunities to undergo experiential learning in clinical settings, making learning relatable to the students. Today, we have a strong research collaboration with local institutions of international repute as well as with foreign institutions. Besides, our lecturers and researchers have been actively engaged by both local and multinational companies and institutes in various consultation works.



VISION OF THE SCHOOL OF PHARMACEUTICAL SCIENCES:

The School of Pharmaceutical Sciences envisions to become a global centre of excellence for sustainable and innovative pharmaceutical education, research and practice for the wellness of society.

MISSION OF THE SCHOOL OF PHARMACEUTICAL SCIENCES:

The School of Pharmaceutical Sciences is committed to producing professional, innovative and competitive graduates to meet the needs of the pharmacy profession and enhance consultancy, trans-disciplinary research and global collaboration for sustainable development and empowerment of society.

PROGRAMME EDUCATIONAL OUTCOME

The Bachelor of Pharmacy Degree offered by the School of Pharmaceutical Sciences, USM aims to produce graduates who are:

- competent, skilful, resourceful, ethical and professional;
- self-reliant with leadership values and critical thinking skills;
- caring, compassionate and show respect and fairness to others; and
- adaptable to socioeconomics, health, and environmental changes.

PROGRAMME LEARNING OUTCOME

At the end of the programme, the students will be able to:

- demonstrate knowledge and understanding in relevant areas of pharmaceutical sciences and pharmacy practice;
- analyse and formulate solutions to pharmaceutical-related problems;
- apply practical, digital and numeracy skills in clinical, industrial and community pharmacy settings;
- demonstrate effective interpersonal skills and teamwork through verbal and nonverbal communication in various settings;
- reflect on personal knowledge and skills via engagement in activities that enhance personal and professional development;
- demonstrate entrepreneurship skills pertaining to pharmaceutical-related areas;
- display integrity, ethics and professionalism in general conduct.

COURSES OFFERED

- Bachelor of Pharmacy with Honours (four-year programme)
- Masters of Pharmacy in Clinical Pharmacy by coursework (12-month programme)
- Masters of Science and Doctoral degrees by research

THE BACHELOR OF PHARMACY DEGREE correlates scientific findings with a strong foundation of core science courses that includes:

- **PHYSIOLOGY** is a branch of biology that requires our students to learn about the functions of the body and its parts. It forms the fundamental to understand the pathophysiology of the diseases and pharmacology of the drugs.
- **PHARMACOLOGY** provides knowledge concerned with the uses, effects and mechanism of action of drugs used in the treatment. Students are expected to learn about absorption, distribution, metabolism, excretion, mechanism of action, uses and adverse effects of drugs in this discipline.
- **PHARMACEUTICAL CHEMISTRY** emphasises the application of the principles of basic chemistry to the study of drugs, their physico-chemical properties, structures and their relationship to biological activities. Students will also be learning about phytochemistry involving natural products and various analytical techniques for chemical identification.
- **PHARMACEUTICAL TECHNOLOGY** imparts knowledge in pharmaceutical formulation and preparation in various dosage form, new dosage designs, industrial processes, quality control, microbiological control besides biopharmacy and pharmacokinetic aspects to the students.
- **CLINICAL PHARMACY** introduces the students to the pathophysiology of disease states and the rationale of drug choice in the treatment and/or prevention of the diseases. Clinical Pharmacy emphasises the application of multidisciplinary knowledge to clinical pharmacy practice. Students will be assigned to experience clinical learning by participating in ward rounds in hospitals as well as in community pharmacies.
- **SOCIAL AND ADMINISTRATIVE PHARMACY** focuses on the scientific and humanistic bases for understanding and influencing the interactions involving patients, medicines, caregivers and healthcare system by integrating knowledge of pharmacy and pharmaceuticals with knowledge of economics, sociology, psychology, management sciences, epidemiology, communication, law and ethics.

GUIDELINE FOR COURSE REGISTRATION

LEVEL 100		LEVEL 200		LEVEL 300		LEVEL 400	
Semester I	Semester II	Semester I	Semester II	Semester I	Semester II	Semester I	Semester II
FAR113/3 Organic Chemistry	FAR114/3 Pharmaceutical Chemistry	FAR215/3 Pharmaceutical Analysis	FAR223/3 Physical Pharmacy II	FAR324/4 Pharmaceutical Processing	FAR314/3 Pharmacognosy and Phytochemistry	FAR420/3 Pharmaceutical Biotechnology	FEL470/6 Research Exercise
FAR123/3 Microbiology for Pharmacy	FAR115/2 Principles of Medicinal Chemistry	FAR221/3 Physical Pharmacy I	FAR224/2 Drug Delivery and Targeting	FAR325/2 Biopharmaceutics and Pharmacokinetics	FAR343/2 Gastrointestinal System and Therapy	FAR462/2 Community Pharmacy	FEL478/2 Patient Bed Side Physiology
FAR132/3 Basic Physiology and Pharmacology	FAR116/3 Biochemistry	FAR222/3 Dosage Form II	FAR241/4 Antimicrobial Therapy	FAR341/4 Respiratory, Renal, Blood Systems and Therapy	FAR344/4 Central Nervous System and Therapy	FAR491/3 Pharmacoepidemiology & Pharmacoeconomics in Developing Countries	
FAR153/2 Communication Skill in Pharmacy Practice	FAR122/4 Dosage Form I	FAR240/4 Peripheral System and Therapy	FAR242/4 Endocrine System and Metabolism	FAR342/3 Cardiovascular System and Therapy	FAR354/2 Pharmacoinformatics: Theory and Application	FEL470/6 Research Exercise	
FAR191/4 Research Methodology and Statistics in Pharmacy	FAR162/2 Principles of Immunology and Oncology	FAR281/2 Introduction to Industrial Pharmacy and Pharmacy Practice	FAR281/2 Introduction to Industrial Pharmacy and Pharmacy Practice	FAR352/4 Clinical Pharmacy Practice	FAR355/2 Clinical Pharmacokinetics & Pharmacotherapeutic Monitoring	FEL476/2 Current Topics in Human Physiology	
Option (2-4 units)	FAR193/3 Social and Public Health Pharmacy	FAR292/2 Pharmaceutical Management	FEL275/2 Toxicology	***Option (4 units)	FAR382/2 Forensic Pharmacy	FEL477/2 Personal Care	
English language (2 units)	*WUS 101/2 Core Entrepreneurship	FEL273/2 Veterinary Pharmacy	FEL276/2 Introduction to Pharmaceutical Marketing	English language (2 units)	FEL373/2 Drug Modelling	FEL479/2 Precision Medicine	
Co-curriculum (1 units)	**SEA205/4 Malaysian Studies	FEL274/2 Health Promotion in Pharmacy	***Option (4 units)	Co-curriculum (1 unit)	FEL374/2 Drug and Society	English language (2 units)	
	Co-curriculum (1 unit)	***Option (4 units)	*HFE224/2 Appreciation of Ethics and Civilisation		***Option (4 units)	Co-curriculum (1 unit)	
		HFF225/2 Philosophy and Current Issues	Bahasa Malaysia (2 units)		English language (2 units)		
		English Language (2 units)			Co-curriculum (1 unit)		

LEVEL 400					
Industrial Pharmacy Stream		**Clinical Pharmacy Stream**		**Community Pharmacy Stream**	
Semester I	**Semester II**	**Semester I**	**Semester II**	**Semester I**	**Semester II**
FAR411/2 Advanced Pharmaceutical Analysis	FAR427/8 Industrial Training (Industrial Pharmacy)	FAR460/2 Traditional and Complementary Medicine	FAR465/2 Pharmacy Aseptic Services	FAR460/2 Traditional and Complementary Medicine	FAR492/8 Industrial Training (Community Pharmacy)
FAR426/2 Industrial Pharmacy		FAR467/2 Applied Therapeutic I	FAR466/2 Pharmacotherapy in Special Population	FAR467/2 Applied Therapeutic I	
			FAR468/4 Applied Therapeutic II		

* For Malaysian students only; ** For international students only; *** For Community Pharmacy stream

CORE SPECIALISATION ELECTIVES ELECTIVES/ OPTIONS UNIVERSITY UNIVERSITY

GRADUATION REQUIREMENTS FOR BACHELOR OF PHARMACY WITH HONOURS

[a] Fulfil the minimum residential requirement of the studies.

[b] Fulfil all credit requirement; i.e. the requirements for each component [Core, Elective, Option and University Courses].

[c] Obtain a CGPA of 2.67 and above for the Core components, by achieving a grade of B- and above foe each Core course.

[d] Obtain a CGPA of 2.00 and above for the programme.

[e] Achieve a minimum grade C or a grade point of 2.00 for University courses.

GRADUATING UNIT STRUCTURE

NO	TYPE OF COURSES	UNIT
1	Core	102
2	Specialization Elective	12
3	Elective / Option	16
4	University	
	a) Bahasa Malaysia	2
	b) English Language	4
	c) WUS 101 Core Entrepreneurship *	2
	d) SEA 205 Malaysian Studies **	4
	e) HFE 224 Appreciation of Ethics and Civilisation *	2
	f) HFF 225 Philosophy and Current Issues	2
	g) Co-curriculum	2
	h) Co-curriculum/ Option / Skills Courses	1
	TOTAL	**145**

* For Malaysian students; ** For international students


Theatre-style lecture hall

FACILITIES

The Teaching and Learning Laboratories in the School are well equipped with necessities like computer and Internet access, video recorders, overhead projectors and televisions. In addition to these facilities, the laboratories also provide books for references. The University's Main Library has an extensive collection of media materials, reference textbooks and journals in all branches of pharmacy.

The School's current facilities include modern lecture halls, computer laboratories and well-equipped teaching and research laboratories. Students could also benefit from real-world experiences in a variety of clinical settings offered by the Hospital Pulau Pinang and Hospital USM, where the practical component of clinical pharmacy is carried out.


BPharm teaching laboratory


Computer laboratory


Teaching laboratory

Simulated patient counselling

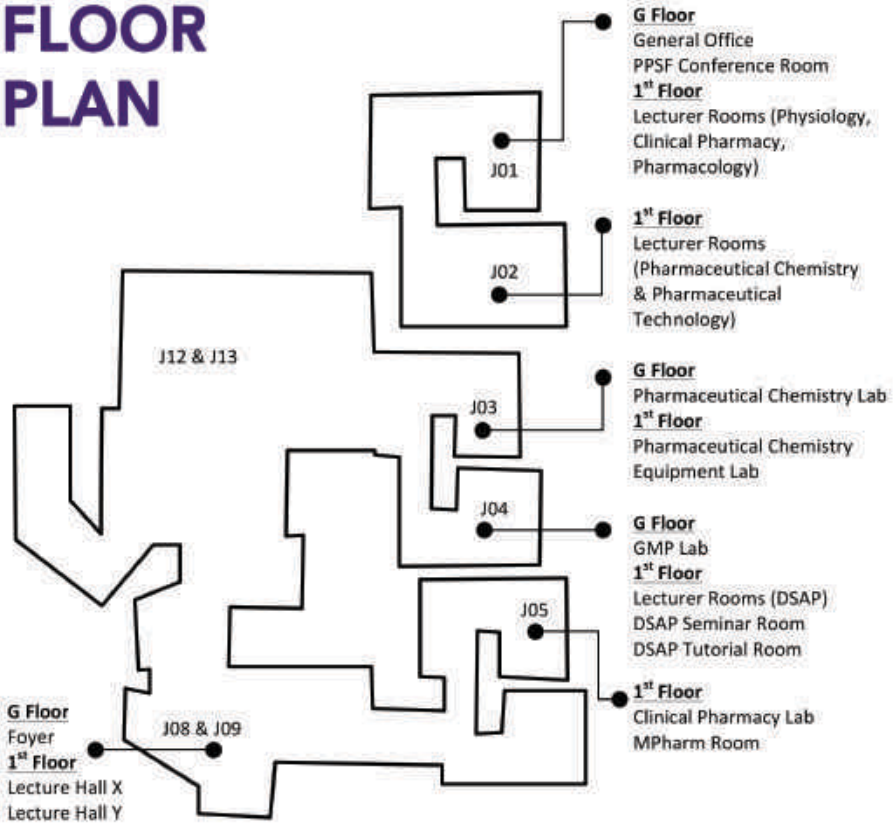
Community outreach programme

Community pharmacy attachment

Total parenteral nutrition practical session

Drug Reconstitution hands-on

FLOOR PLAN



J12 & J 13: Lab Location (Block/Room No.)

J02/002-003: Pharmacology Lab
J02/014: Pharmaceutical Technology Lab 1
J02/017: Pharmaceutical Technology Lab 2
J02/036-038: Pharmacology Lab
J12/001: Pharmaceutical Industry Lab
J12/016: EMAN Lab
J12/039: Pharmacology Teaching Lab 1
J12/041: Pharmacology Teaching Lab 2
J12/050-051: Physiology Lab
J12/102: Molecular Biology Lab 2
J12/103: Molecular Biology Lab 1
J12/109-110: Pharmaceutical Technology Lab 7
J12/112: Microbiology Teaching Lab 1
J12/122: Microbiology Teaching Lab 2
J12/201: Pharmaceutical Chemistry Lab 2
J12/224: Pharmaceutical Chemistry Teaching Lab
J12/225: Physiology Lab 2
J12/226: CAI Lab
J12/227: Pharmaceutical Technology Lab 2
J13/201: Pharmaceutical Chemistry Lab
J13/209: Pharmaceutical Analysis Lab
J13/210: Physiology Lab
J13/219: Pharmaceutical Technology Lab
J13/220: Dispensing Lab

Leading pharmacy education

SCHOOL OF PHARMACEUTICAL SCIENCES

DOWNLOAD ACADEMIC HANDBOOK HERE

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PENANG, MALAYSIA

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