



# **UNDERGRADUATE STUDENT GUIDEBOOK ACADEMIC SESSION 2023/2024**



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**Disclaimer:** The contents of this guidebook are designed for basic and general information which can from time to time, still, be subjected to any changes in any relevant section(s) based on the decision by the management and Senate of UniSZA as well as in accordance to government directives.

## CONTENTS

NO.	CONTENTS	PAGE
i.	<b>DEAN'S FOREWORD</b>	<b>1</b>
ii.	<b>COMMITTEE OF UNDERGRADUATE STUDENT GUIDEBOOK</b>	<b>2</b>
<b>1.0</b>	<b>UNIVERSITI SULTAN ZAINAL ABIDIN AT A GLANCE</b>	
	<b>1.1 History of Universiti Sultan Zainal Abidin</b>	<b>3</b>
	<b>1.2 Vision, Mission, Motto, and Philosophy</b>	<b>3</b>
	<b>1.3 Board of Directors</b>	<b>4</b>
	<b>1.4 Management</b>	<b>5</b>
<b>2.0</b>	<b>GENERAL INFORMATION OF THE FACULTY</b>	
	<b>2.1 Faculty Background</b>	<b>6</b>
	<b>2.2 Vision and Mission</b>	<b>6</b>
	<b>2.3 Faculty Management</b>	<b>7</b>
	<b>2.4 Academic Staff</b>	<b>8</b>
	<b>2.5 Administrative Staff</b>	<b>9</b>
	<b>2.6 External Reviewer</b>	<b>10</b>
<b>3.0</b>	<b>PROGRAMME INFORMATION</b>	
	<b>3.1 Bachelor of Pharmacy (Honours)</b>	<b>12</b>
	<b>3.2 Programme Objectives</b>	<b>12</b>
	<b>3.3 Programme Educational Outcomes (PEO)</b>	<b>13</b>
	<b>3.4 Programme Learning Outcomes (PLO)</b>	<b>13</b>
	<b>3.5 Duration of the Programme</b>	<b>13</b>
	<b>3.6 Entry Requirements</b>	<b>14</b>
	<b>3.7 Curriculum Structure</b>	<b>15</b>
	<b>3.8 Course Structure</b>	<b>15</b>
	<b>3.9 Faculty Core Courses</b>	<b>18</b>
	<b>3.10 Faculty Elective Courses</b>	<b>19</b>
	<b>3.11 University Courses</b>	<b>33</b>
	<b>3.12 Grading System</b>	<b>44</b>
	<b>3.13 Career Prospect</b>	<b>45</b>

## DEAN'S FOREWORD



### *Salam Perkenalan & Welcome To UniSZA!*

Our foremost and heartiest congratulations to you for successfully enrolling into our Bachelor of Pharmacy (Hons.) programme at the Faculty of Pharmacy. Many thanks also for choosing to come to UniSZA – a young tertiary institution which represents our pride of Terengganu!

We believe that our B. Pharm (Hons.) programme continues to remain popular in the Malaysian education “market” as it offers a reliable and exciting career pathway ahead. This is even more appealing with the recent Full Accreditation recognition of our programme by the Malaysian Qualification Agency (MQA – FA 10576). Besides guiding you throughout the fundamentals of pharmacy and pharmaceutical sciences, our well-experienced academic experts are ever-ready to provide emotional counselling and social support whenever required. In addition to conventional and hybridised learning platforms during lectures or hands-on laboratory sessions, our programme also emphasises on *akidah* and *akhlak* (faith and morality) values in which the intended experiential learning is imparted via attachment and clerkship rotations in the hospital, industry and retail pharmacy. Community pharmacy importantly represents our focal emphasis in the curriculum in order to benefit the people through future professional and ethical pharmacists. However, extra-curricular activities must not be neglected in strengthening your overall competencies that should be aligned with talents, creativities, and religious values as outlined in our Flexible Education with Soul (FlexS) concept. Do explore this guidebook further for the necessary information and try fulfil your pharmacy dreams with us by learning as much as you can.

All the best!

Sincerely,

Prof. Dr. Lua Pei Lin  
Dean  
Faculty of Pharmacy

## **COMMITTEE OF UNDERGRADUATE STUDENT GUIDEBOOK**

### **Advisor:**

Prof. Dr. Lua Pei Lin

### **Chairman:**

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### **Deputy Chairman:**

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Mdm. Nur Jannah binti Ghozali  
Ms. Nur Aida Suhada binti Mohd Zain

## **UNIVERSITI SULTAN ZAINAL ABIDIN AT A GLANCE**

### **Universiti Sultan Zainal Abidin: *The Pride of the People of Terengganu***

Universiti Sultan Zainal Abidin (UniSZA) started as Kolej Ugama Sultan Zainal Abidin (KUSZA) and commenced its operation on 1 January 1980 at Batu Burok before moving to Hajah Wook Building in Pulau Kambing in 1981. KUSZA was upgraded into a full-fledged university known as Universiti Darul Iman Malaysia (UDM) in March 2005.

Upon rebranding, UDM was later re-introduced as Universiti Sultan Zainal Abidin (UniSZA) on 14 May 2010. The name of the late Sultan Zainal Abidin III Muazzam Shah ibni Almarhum Sultan Ahmad Muazzam Shah II, Sultan The 11<sup>th</sup> Terengganu is adopted to honour the services of His Majesty in spreading the knowledge and religion in the state of Terengganu. UniSZA currently operates in three separate campuses; namely the Gong Badak Campus (Kuala Nerus) which serves as the main campus, Medical Campus (Kuala Terengganu) and Besut Campus as well as operating a satellite office in Putrajaya.

### **Vision**

To become a Leader for Contemporary Integrated Islamic Universities

### **Mission**

To develop holistic citizens through excellent education and high-impact research based on a smart experience leading to a sustainable society

### **Motto**

Knowledge for The Benefit of Humanity

### **Philosophy**

The Integration of Islamic and Contemporary Excellence for the Benefit of the Ummah

## Board of Directors



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Tan Sri Che Khalib  
Mohamad Noh



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**Board Member**

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Dato' Seri Tengku Farok  
Hussin bin Tengku Abdul Jalil



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Tengku Mansor



**Board Member**

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**Secretary**

Mr. Muzafar bin Mohd Din

## Top Management



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Prof. Dato' Dr. Fadzli bin  
Adam



**Deputy Vice Chancellor  
(Student & Alumni Affairs)**  
Dato' Prof. Madya Ts.  
Dr. Mohd Hafiz bin Yusoff



**Deputy Vice Chancellor  
(Academic & International)**  
Prof. Dr. Zuhairah Ariff  
binti Abd Ghadas



**Deputy Vice Chancellor  
(Research & Innovation)**  
Prof. Ts. Dr. Shukor  
bin Abd Razak



**Bursar**  
Mr. Suhaili bin Mohd



**Registrar**  
Mr. Muzafar bin Mohd Din



**Legal Advisor**  
Mr. Mohd Fuad bin Husaini



**Director Besut Campus**  
Prof. Dr. Mohd Nordin  
bin Abdul Rahman



**Director Corporate  
Communications and  
Relationship Management Centre**  
Assoc. Prof. Dr. Syarilla Iryani  
binti Ahmad Saany

## **GENERAL INFORMATION OF THE FACULTY**

### **Faculty Background**

The Faculty of Pharmacy Universiti Sultan Zainal Abidin (UniSZA) was approved by the Ministry of Higher Education on 19 September 2016. The faculty begins operating in UniSZA Besut Campus in April 2017. The development of the faculty is hoped to contribute to the role of UniSZA to provide health-based education in Malaysia and particularly in the East Coast of Peninsular Malaysia. Currently, the faculty offers a Bachelor of Pharmacy (Honours) programme which emphasises community pharmacy practice.

The curriculum used by the faculty is based on the guidelines from Pharmacy Board Malaysia. The curriculum is designed to produce graduates with a strong pharmaceutical and clinical background as well as a high interest in pharmacy entrepreneurship.

It is expected that the faculty will create more health professionals, not only for the Bachelor of Pharmacy programme but also in postgraduate programmes. The graduates are envisaged to contribute to the well-being of the community and Malaysia's economy.

### **Vision**

To be a faculty which is innovative and sustainable in teaching, learning and research in pharmacy and pharmaceutical sciences founded on competency, commitment, and professionalism.

### **Mission**

Integrating human civilisation and technology management in contemporary pharmacy and pharmaceutical science-based programs to produce ethical and community-friendly health professionals.

## Faculty Management



**Dean**

Prof. Dr. Lua Pei Lin  
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(Academic & Graduate)**

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(Research & Development)**

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**Exam Coordinator**

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**Assistant Registrar**

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**Academic Staff**



Prof. Dr. Lua Pei Lin  
(Pharmacy Practice)



Dr. Nurulumi binti Ahmad  
(Clinical Pharmacy)



Dr. Zalina bt Zahari  
(Pharmacology & Toxicology)



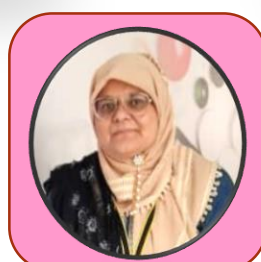
Dr. Che Ku Dahlan  
bin Che Ku Daud  
(Basic Health Sciences)



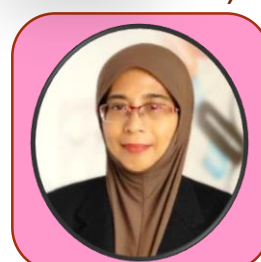
Dr. Mulham Alfatama  
(Pharmaceutical  
Technology)



Mdm. Aslinda binti Jamil  
(Clinical Pharmacy)



Assoc. Prof. Dr. Shazia  
Jamshed  
(Pharmacy Practice)



Dr. Syaliza binti Omar  
(Pharmaceutical  
Chemistry)



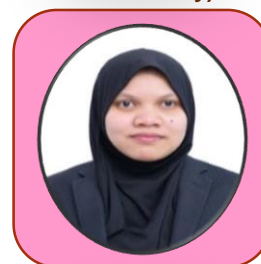
ChM. Dr. Norsyafikah  
Asyilla binti Nordin  
(Pharmaceutical  
Chemistry)



Assoc. Prof. Dr. Azyyati  
binti Mohd Suhaimi  
(Pharmacology &  
Toxicology)



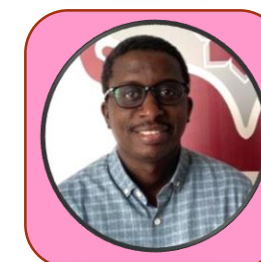
Mr. Ahmad Kamal Ariffin  
bin Abdul Jamil  
(Clinical Pharmacy)



Ms. Habibah  
binti Kamaruzaman  
(Basic Health Sciences)



Dr. Tarek Mohamed Ali  
Elsayed  
(Pharmaceutical  
Technology)



Dr. Umar Idris Ibrahim  
(Clinical Pharmacy)

**Administrative Staff**



Mdm. Munirah binti Ab Rahman  
**Assistant Registrar**



Mdm. Fairuz binti Zakaria  
**Administrative Officer Assistant**



Mdm. Nur Jannah binti Ghozali  
**Administrative Assistant**



Ms. Nur Aida Suhada binti Mohd Zain  
**Administrative Assistant**



Mr. Mohd Sukri bin Chik @ Ismail  
**Administrative Assistant**



Mr. Abdul Shukur bin Yahya  
**Operation Assistant**

### Visiting Professor



**Professor Gregory Peterson**  
Distinguished Professor of Pharmacy  
School of Pharmacy and Pharmacology  
University of Tasmania, Australia

### Adjunct Professor



**Dr. Wan Shazrina binti Dato' Wan Zaid**  
Chief Executive Officer  
Superbig Pharmacy

### External Assessors



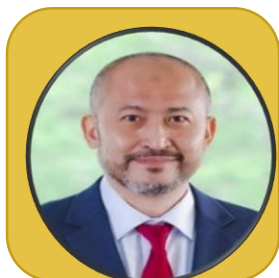
**Prof. Dr. Peh Kok Kiang**  
School of Pharmaceutical Sciences  
Universiti Sains Malaysia



**Prof. Dr. Mohamed Izham bin Mohamed Ibrahim**  
Head of Research and Graduate Studies-Pharmacy  
College of Pharmacy  
Qatar University

## **External Advisor Committee**

### **Chairman**



**Prof. Dr. Mohd Zulkefeli bin Mat Jusoh (Chairman)**

Director of Quality  
Faculty of Pharmacy  
International Medical University (IMU)

### **Committee Members**



**Mr. Abdul Aziz bin Jamaludin**

Chief Executive Officer  
AlSyifaa Holding Sdn. Bhd.



**Mr. Mohd Hanif bin Abdul Rahman**

Head of Pharmacy Department  
Hospital Universiti Sains Malaysia



**Mr. Ahmad Syamsury bin Sulaiman**

Head of Plant  
Pharmaniaga LifeScience Sdn. Bhd.

## **PROGRAMME INFORMATION**

### **Bachelor of Pharmacy (Honours)**

The programme is designed to produce graduates with a strong pharmaceutical and clinical background as well as a high interest in pharmacy entrepreneurship. With the current job saturation of pharmacists in the public sector, future graduates can no longer expect to easily find jobs waiting for them in government hospitals. Therefore, other scopes of pharmacy careers need to be explored to instil a culture of 'job creators' among them.

Exposure to community pharmacy practice in the program is in the form of regular retail pharmacy attachments. With this exposure to pharmacy practice in the community setting, students will be able to identify and establish their roles and functions in the community.

Students shall obtain their clinical experience during the clinical years. They shall have sufficient experience working with and handling drug-related issues with customers/patients, and they bring these experiences into their third-year clinical and hospital clerkships.

Faculty of Pharmacy has received full accreditation from Malaysian Qualification Agency.

### **Programme Objectives**

The aims of the programme are:

- i. To provide a foundation for the purpose of planning and facilitating activities regarding administration, management and handling of academic programmes relating to pharmacy and pharmaceutical sciences.
- ii. To provide cutting-edge facilities to support the development and expansion of the main professional programme, that is, the Bachelor of Pharmacy programme.
- iii. To serve as a centre for the planning, development and expansion of quality multi-disciplinary post-graduate programmes relating to pharmacy and pharmaceutical sciences to meet the national and international needs.
- iv. To explore and establish research activities, publications, and consultation in pharmacy and pharmaceutical sciences that will lead to the establishment of centres of excellence that will become reputable centres of reference.
- v. To lead the provision of community services towards increasing the quality of health care through continuous health education, and rational drug use.

### **Programme Educational Outcomes (PEO)**

1. To apply the knowledge, practical and interpersonal skills in delivering efficient, affordable and accessible pharmaceutical care.
2. To display effective communication, digital and numeracy skills in providing pharmaceutical services to the society.
3. To embrace leadership and entrepreneurial qualities in engaging with pharmaceutical industrial players.
4. To demonstrate personal skills, ethical values and professionalism to uphold the profession's integrity.

### **Programme Learning Outcome (PLO)**

At the end of the Bachelor of Pharmacy (Honours) programme, the students will be able to:

- PLO1 : Describe the knowledge of fundamental pharmaceutical sciences in the practice of pharmacy.
- PLO2 : Propose evidence-based, creative and effective solution to pharmacy-related problems.
- PLO3 : Demonstrate independent skills in drug compounding, manufacturing and dispensing skills with regard to the practice of pharmacy.
- PLO4 : Display caring responsibility to facilitate community-focused healthcare.
- PLO5 : Initiate effective communication with peers, other healthcare professionals and the community.
- PLO6 : Accommodate digital skills in information management and patient care.
- PLO7 : Relate mathematical, statistical and graphical skills in designing patient-centered healthcare.
- PLO8 : Show leadership responsibility and teamwork among healthcare professionals and the community.
- PLO9 : Integrate personal values and behaviours as professional community pharmacists.
- PLO10 : Form entrepreneurial skills within the pharmacy ecosystem.
- PLO11 : Adhere to professional conduct in line with the pharmacy code of ethics and professionalism

### **Duration of the Programme**

Study Mode	Minimum	Maximum
Full time	8 semesters (4 years)	10 semesters (5 years)

## Entry Requirements

STPM	MATRICULATION / FOUNDATION	DIPLOMA
<p>1. Passed with at least <b>CGPA of 3.50</b> at <b>STPM</b> level</p> <p><b>AND</b></p> <p>2. Obtained at least <b>Grade B</b> at <b>STPM</b> level for the following subjects:</p> <ul style="list-style-type: none"> <li>➤ Biology</li> <li>➤ Chemistry</li> <li>➤ Physics / Mathematics (T) / Mathematics (M)</li> </ul> <p><b>AND</b></p> <p>3. Obtained at least <b>Grade B</b> at <b>SPM</b> level for the following subjects:</p> <ul style="list-style-type: none"> <li>➤ Biology</li> <li>➤ Chemistry</li> <li>➤ Physics</li> <li>➤ Mathematics / Additional Mathematics</li> <li>➤ <b>ONE (1) other subject NOT INCLUDING Bahasa Melayu</b></li> </ul> <p><b>AND</b></p> <p>4. Obtained at least <b>Grade C</b> at <b>SPM</b> level for <b>Bahasa Melayu and English</b> subjects</p> <p><b>AND</b></p> <p>5. Passed MUET with at least <b>BAND 3</b></p> <p><b>AND</b></p> <p>6. Passed the interview</p> <p><b>AND</b></p> <p>7. No physical disabilities and impairment in speech, hearing and vision</p>	<p>1. Passed with at least <b>CGPA of 3.50</b> at <b>Matriculation / Foundation</b> level</p> <p><b>AND</b></p> <p>2. Obtained at least <b>Grade B</b> at <b>Matriculation / Foundation</b> level for the following subjects:</p> <ul style="list-style-type: none"> <li>➤ Biology</li> <li>➤ Chemistry</li> <li>➤ Physics / Mathematics</li> </ul> <p><b>AND</b></p> <p>3. Obtained at least <b>Grade B</b> at <b>SPM</b> level for the following subjects:</p> <ul style="list-style-type: none"> <li>➤ Biology</li> <li>➤ Chemistry</li> <li>➤ Physics</li> <li>➤ Mathematics / Additional Mathematics</li> <li>➤ <b>ONE (1) other subject NOT INCLUDING Bahasa Melayu</b></li> </ul> <p><b>AND</b></p> <p>4. Obtained at least <b>Grade C</b> at <b>SPM</b> level for <b>Bahasa Melayu and English</b> subjects</p> <p><b>AND</b></p> <p>5. Passed MUET with at least <b>BAND 3</b></p> <p><b>AND</b></p> <p>6. Passed the interview</p> <p><b>AND</b></p> <p>7. No physical disabilities and impairment in speech, hearing and vision</p>	<p>1. Passed with at least <b>CGPA of 3.50</b> in <b>Diploma of Pharmacy</b></p> <p><b>OR</b></p> <p>Passed with at least <b>CGPA of 3.75</b> in <b>Diploma of Science (Chemistry / Biology / Physics)</b></p> <p><b>AND</b></p> <p>2. Obtained at least <b>Grade B</b> at <b>Diploma</b> level for the following subjects:</p> <ul style="list-style-type: none"> <li>➤ Biology</li> <li>➤ Chemistry</li> <li>➤ Physics / Mathematics</li> </ul> <p><b>AND</b></p> <p>3. Obtained at least <b>Grade B</b> at <b>SPM</b> level for the following subjects:</p> <ul style="list-style-type: none"> <li>➤ Biology</li> <li>➤ Chemistry</li> <li>➤ Physics</li> <li>➤ Mathematics / Additional Mathematics</li> <li>➤ <b>ONE (1) other subject NOT INCLUDING Bahasa Melayu</b></li> </ul> <p><b>AND</b></p> <p>4. Obtained at least <b>Grade C</b> at <b>SPM</b> level for <b>Bahasa Melayu and English</b> subjects</p> <p><b>AND</b></p> <p>5. Passed MUET with at least <b>BAND 3</b></p> <p><b>AND</b></p> <p>6. Passed the interview</p> <p><b>AND</b></p> <p>7. No physical disabilities and impairment in speech, hearing and vision</p>

## Curriculum Structure

Bachelor of Pharmacy (Honours) programme is a full-time programme that shall be completed in a **minimum of 8 semesters and not more than 10 semesters**. Total credit hours throughout the programme are **142 hours** consisting of core, elective and university courses. The courses offered by the faculty are comprised of six disciplines including Pharmaceutical Chemistry, Pharmaceutical Technology, Basic Health Sciences, Pharmacology and Toxicology, Clinical Pharmacy and Pharmacy Practice.

### Programme Structure

Category	Course Name	Credit Hours
University Courses	University General Courses	13
	English Language Courses	4
	Foreign Language Elective Courses	2
Core Courses	Faculty Core Courses	115
Elective Courses	Faculty Elective Courses	6
	Other Faculty Elective Courses	2
<b>TOTAL</b>		<b>142</b>

## Course Structure

### Year 1 (2023/2024), Semester 1

Category	Course Code	Course Name	Credit Hours
University Courses	MPU 31072	Penghayatan Etika dan Peradaban (Appreciation of Ethics and Civilisations)	2
	MPU 33012 / MPU 33022	Ilmu Wahyu & Sains (Revealed & Sciences Knowledge) / Moral Dan Etika II (Moral & Ethics II)	2
	PBI 10102	English for Communication I	2
Core Courses	PHM 10103	Organic and Inorganic Chemistry	3
	PHM 10202	Biochemistry	2
	PHM 10303	General and Peripheral Nervous System Pharmacology	3
	PHM 10402	Human Anatomy and Physiology I	2
	PHM 10502	Fundamentals of Pharmacy Practice	2
<b>TOTAL</b>			<b>18</b>

**Year 1 (2023/2024), Semester 2**

Category	Course Code	Course Name	Credit Hours
University Courses	MPU 31062	Falsafah dan Isu Semasa (Philosophy and Current Issues)	2
	MPU 32092	Asas Pembudayaan Keusahawanan (Foundation of Entrepreneurship)	2
	MPU 33032 / MPU 33042	Ilmu Wahyu dan Kemasyarakatan (Revealed & Social Sciences Knowledge) / Perbandingan Agama II (Comparative Studies of Religion II)	2
	ASING1	Kursus Bahasa Asing 1	2
	KOKO	Kursus Kokurikulum	3
	PBI 10202	English for Communication II	2
Core Courses	PHM 10703	Medicinal Chemistry	3
	PHM 10802	Physical Pharmacy	2
	PHM 10902	Human Anatomy and Physiology II	2
<b>TOTAL</b>			<b>20</b>

**Year 2 (2024/2025), Semester 1**

Category	Course Code	Course Name	Credit Hours
Core Courses	PHM 10602	Pharmaceutical Microbiology & Sterile Preparations	2
	PHM 11002	Pharmacoinformatics	2
	PHM 20103	Dosage Form Design I (Liquid & Semi-Liquid)	3
	PHM 20202	Pharmacology of GIT & Hepatobiliary System	2
	PHM 20302	Phytochemistry	2
	PHM 20403	Pharmaceutical Biotechnology & Immunology	3
Elective Courses	PHM 20502 / PHM20602	Personal Care Products and Medical Devices / Veterinary Pharmacy	2
	KELF1	Other Faculty Elective Courses	2
<b>TOTAL</b>			<b>18</b>

**Year 2 (2024/2025), Semester 2**

Category	Course Code	Course Name	Credit Hours
Core Courses	PHM 20703	Pharmaceutical Analysis	3
	PHM 20803	Pharmacognosy	3
	PHM 20903	Dosage Form Design II (Solid Pharmaceuticals)	3
	PHM 21003	Cardiovascular, Renal and Respiratory Pharmacotherapeutics	3
	PHM 21102	Central Nervous System Pharmacotherapeutics	2
	PHM 21202	Pharmacy Management	2
	PHM 21302	Biopharmaceutics and Pharmacokinetics	2
<b>TOTAL</b>			<b>18</b>

**Year 3 (2025/2026), Semester 1**

Category	Course Code	Course Name	Credit Hours
Core Courses	PHM 30103	Research Methodology	3
	PHM 30202	Biostatistics	2
	PHM 30303	Formulation, Characterisation and Packaging	3
	PHM 30402	Pharmacy Law and Ethics	2
	PHM 30502	Manufacturing Pharmacy	2
	PHM 30602	Pharmacy Entrepreneurship	2
	PHM 30703	Endocrine, Reproductive & Genito-Urinary System Pharmacotherapeutics	3
Elective Courses	PHM 30802 / PHM 30902	Substance Use & Abuse / Business Studies for Pharmacists	2
<b>TOTAL</b>			<b>19</b>

**Year 3 (2025/2026), Semester 2**

Category	Course Code	Course Name	Credit Hours
Core Courses	PHM 31002	Chemometrics for Pharmaceutical Applications	2
	PHM 31103	Antimicrobial & Cytotoxic Pharmaceuticals	3
	PHM 31204	Therapeutics I (Cardiovascular & Gastrointestinal Disorder)	4
	PHM 31303	Public Health Pharmacy	3
	PHM 31405	Pharmacy Research	5
	PHM 31503	Hospital Pharmacy Practice	3
<b>TOTAL</b>			<b>20</b>

**Year 4 (2026/2027), Semester 1**

Category	Course Code	Course Name	Credit Hours
Core Courses	PHM 40103	Therapeutics II (Endocrinological, Genitourinary Tract Disorders)	3
	PHM 40203	Clinical Pharmacokinetics and Pharmacogenomics	3
	PHM 40303	Therapeutics III (Neurology, Psychiatry, Dermatology & Pain)	3
	PHM 40402	Medication Review and Counselling	2
Elective Courses	PHM 40502 / PHM 40602	Health Behaviour & Health Education / Smoking Cessation Certification Programme	2
<b>TOTAL</b>			<b>13</b>

**Year 4 (2026/2027), Semester 2**

Category	Course Code	Course Name	Credit Hours
Core Courses	PHM 40704	Therapeutics IV (Infectious Disease, Oncology & Respiratory Diseases)	4
	PHM 40802	Toxicology	2
	PHM 40902	Manufacturing Pharmacy Clerkship	2
	PHM 41006	Community Pharmacy Clerkship	6
	PHM 41102	Traditional and Complementary Medicine	2
<b>TOTAL</b>			<b>16</b>

**Faculty Core Courses**

NO.	COURSE CODE	COURSE NAME	CREDIT HOURS
1.	PHM 10103	Organic and Inorganic Chemistry	3
2.	PHM 10202	Biochemistry	2
3.	PHM 10303	General and Peripheral Nervous System Pharmacology	3
4.	PHM 10402	Human Anatomy and Physiology I	2
5.	PHM 10502	Fundamentals of Pharmacy Practice	2
6.	PHM 10602	Pharmaceutical Microbiology & Sterile Preparations	2
7.	PHM 10703	Medicinal Chemistry	3
8.	PHM 10802	Physical Pharmacy	2
9.	PHM 10902	Human Anatomy and Physiology II	2
10.	PHM 11002	Pharmacoinformatics	2
11.	PHM 20103	Dosage Form Design I (Liquid & Semi-Liquid)	3
12.	PHM 20202	Pharmacology of GIT & Hepatobiliary System	2
13.	PHM 20302	Phytochemistry	2
14.	PHM 20403	Pharmaceutical Biotechnology & Immunology	3
15.	PHM 20703	Pharmaceutical Analysis	3
16.	PHM 20803	Pharmacognosy	3
17.	PHM 20903	Dosage Form Design II (Solid Pharmaceuticals)	3

18.	PHM 21003	Cardiovascular, Renal and Respiratory Pharmacotherapeutics	3
19.	PHM 21102	Central Nervous System Pharmacotherapeutics	2
20.	PHM 21202	Pharmacy Management	2
21.	PHM 21302	Biopharmaceutics and Pharmacokinetics	2
22.	PHM 30103	Research Methodology	3
23.	PHM 30202	Biostatistics	2
24.	PHM 30303	Formulation, Characterisation and Packaging	3
25.	PHM 30402	Pharmacy Law and Ethics	2
26.	PHM 30502	Manufacturing Pharmacy	2
27.	PHM 30602	Pharmacy Entrepreneurship	2
28.	PHM 30703	Endocrine, Reproductive & Genito-Urinary System Pharmacotherapeutics	3
29.	PHM 31002	Chemometrics for Pharmaceutical Applications	2
30.	PHM 31103	Antimicrobial & Cytotoxic Pharmaceuticals	3
31.	PHM 31204	Therapeutics I (Cardiovascular & Gastrointestinal Disorder)	4
32.	PHM 31303	Public Health Pharmacy	3
33.	PHM 31405	Pharmacy Research	5
34.	PHM 31503	Hospital Pharmacy Practice	3
35.	PHM 40103	Therapeutics II (Endocrinological, Genitourinary Disorders)	3
36.	PHM 40203	Clinical Pharmacokinetics and Pharmacogenomics	3
37.	PHM 40303	Therapeutics III (Neurology, Psychiatry, Dermatology & Pain)	3
38.	PHM 40402	Medication Review and Counselling	2
39.	PHM 40704	Therapeutics IV (Infectious Disease, Oncology & Respiratory Diseases)	4
40.	PHM 40802	Toxicology	2
41.	PHM 40902	Manufacturing Pharmacy Clerkship	2
42.	PHM 41006	Community Pharmacy Clerkship	6
43.	PHM 41102	Traditional and Complementary Medicine	2
<b>TOTAL CREDIT HOURS</b>			<b>115</b>

### Faculty Elective Courses

NO.	COURSE CODE	COURSE NAME	CREDIT HOURS
1.	PHM 20502	Personal Care Products and Medical Devices	2
2.	PHM 20602	Veterinary Pharmacy	
3.	PHM 30802	Substance Use & Abuse	2
4.	PHM 30902	Business Studies for Pharmacists	
5.	PHM 40502	Health Behaviour & Health Education	2
6.	PHM 40602	Smoking Cessation Certification Programme	
<b>TOTAL CREDIT HOURS</b>			<b>6</b>

Students are required to choose **ONLY THREE** faculty elective courses offered during respective semesters.

## Faculty Core and Elective Courses Synopsis

Course Code	Course Name	Credit Hours
<b>PHM 10103</b>	<b>Organic and Inorganic Chemistry</b>	<b>3</b>
	This course is designed to introduce students to the analytical organic and inorganic chemistry. It outlines the reactions, some techniques such as analysis and uses of molecules containing functional groups such as alcohols, aldehydes, ketones, carboxylic acids as well as amines in both aliphatic and aromatic compounds. The course includes laboratory experiments and application of basic chemistry problems through lecture, e-learning and group work. The students should be able to apply basic chemistry principles and perform good written communication skill on the outcomes of basic experiments in chemistry.	
<b>PHM 10202</b>	<b>Biochemistry</b>	<b>2</b>
	This course is designed to introduce students to the major components and characteristics of biochemical processes occurring in living system. The topics discussed include physicochemical properties and functions of enzyme kinetics, proteins, carbohydrates, lipids, biochemical nature of membranes as well as metabolism and drug delivery. The course includes laboratory experiments and application of basic biochemistry problems through lecture, e-learning and group work. The students should be able to understand basic biochemistry principles in biological macromolecules, perform biochemistry experiments and good communication skills in discussing the outcomes of basic experiments in biochemistry.	
<b>PHM 10303</b>	<b>General and Peripheral Nervous System Pharmacology</b>	<b>3</b>
	This course is designed to introduce students to the autonomic nervous system. It outlines the mechanisms of action, therapeutic use of drugs, adverse effects, drug interactions, and toxicity. The course includes practicals and application of the concept of pharmacological effects of the drugs through lecture, e-learning and group work. The students should be able to describe the functions and drugs affecting the autonomic nervous system and initiate effective written communication for pharmacology of drugs affecting the autonomic nervous system.	
<b>PHM 10402</b>	<b>Human Anatomy and Physiology I</b>	<b>2</b>
	This course is designed to provide an introduction to integrative human systems physiology as a basis for the study of systems pharmacology and therapeutics. The anatomical and morphological arrangements of the human body, organ motility and body movement as a result of nervous and hormonal excitation of various types of muscle, its tissues and organs, the general anatomical organisation of the central and peripheral nervous, its reaction and response as well as the role of blood, anatomical structures of the heart, blood vessels and lungs in humans, and the importance of processes and mechanisms involved in the physiological coordination and control of their functions within the circulation are discussed. The course includes laboratory experiments and application of the concept of integrative human systems physiology as a basis for the study of systems pharmacology and therapeutics through lectures, self-directed learning, e-learning and group work. The students should be able to illustrate the cell's	

structure and basic tissues of the human body, able to explain and describe the early development, basic structures of the human body as well as processes and mechanisms involved in maintaining physiological condition.

<b>PHM 10502</b>	<b>Fundamentals of Pharmacy Practice</b>	<b>2</b>
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Besides tapping on the historical aspects of pharmacy practice, this course provides primary knowledge required for pharmacy-oriented settings. Students are initially exposed to pharmacy/medical terminologies as well as the related abbreviations. Fundamentals of preparing, compounding, formulating and dispensing medication are introduced. Basic issues concerning pharmaceutical calculations, prescription reading, analysis, labelling and law requirements are exposed in relation to the various pharmaceutical dosage forms, routes of administration and over-the-counter drugs. The pharmacist's roles and responsibilities as a professional healthcare provider in hospital, industry and community healthcare system framework are importantly discussed. In addition, current and recent topics e.g. pharmacogenomics, technological automation, pharmacy practice specialisation, health empowerment are incorporated. Teaching will be largely delivered via conventional lectures and e-learning, but group and individual field works are also involved. Students are expected to gain a general idea about the practice of pharmacy and are able to begin exploring the profession.

<b>PHM 10602</b>	<b>Pharmaceutical Microbiology &amp; Sterile Preparations</b>	<b>2</b>
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This course covers the classifications of microorganisms, preservation and sterilisation principles and aseptic techniques. Students also will be exposed to the microbiological tests that are relevant to sterile preparations. The course includes laboratory experiments and application of aseptic techniques through lecture, e-learning and group work. The students should be able to understand the basic principles and concepts of microbiology and aseptic technique, able to integrate good communication skills in the characterisations of microorganisms and aseptic techniques.

<b>PHM 10703</b>	<b>Medicinal Chemistry</b>	<b>3</b>
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This course begins with a brief coverage of the basic principles of Medicinal Chemistry and moves on to deal with chemical nomenclature, synthesis, mechanisms of action, brand names, uses and side effects of the following classes of drugs: autonomic drugs, cardiovascular drugs, hormonal agents, prostaglandins and eicosanoids. etc. The other aspects covered are the drug's target, the principle of drug action, interaction among drugs as well as the concept behind drug discovery and development. The course includes laboratory experiments and application of basic drug synthesis and structure-activity relationship through lecture, e-learning and group work. The students should be able to understand basic chemistry principles and perform chemistry experiments that cover techniques, methods, observations and data collections.

<b>PHM 10802</b>	<b>Physical Pharmacy</b>	<b>2</b>
<p>This course aims to introduce students to the physiochemical principles of drug formulation. It describes the mixing, drying, micrometric, interfacial phenomenon, rheology, diffusion and dissolution, stability and kinetics through lectures, tutorials, self-directed learning, group work and e-learning. The students should be able to describe the basic physicochemical principles in drug formulation and perform good communication skills in explaining the application of the basic physicochemical principles in drug formulation.</p>		
<b>PHM 10902</b>	<b>Human Anatomy and Physiology II</b>	<b>2</b>
<p>This course is designed to provide an introduction to integrative human systems physiology as a basis for the study of systems pharmacology and therapeutics. The anatomical and morphological arrangements of the human body, organ motility and body movement as a result of nervous and hormonal excitation of various types of muscle, its tissues and organs, the general anatomical organisation of the central and peripheral nervous, its reaction and response as well as the role of blood, anatomical structures of the heart, blood vessels and lungs in humans, and the importance of processes and mechanisms involved in the physiological coordination and control of their functions within the circulation are discussed. The course includes laboratory experiments and the application of the concept of integrative human systems physiology as a basis for the study of systems pharmacology and therapeutics through lectures, self-directed learning, e-learning and group work. The students should be able to demonstrate the role of the anatomical and morphological arrangements with an emphasis on good written communication skills with regard to related organ systems.</p>		
<b>PHM 11002</b>	<b>Pharmacoinformatics</b>	<b>2</b>
<p>The course introduces students to expert and knowledge-based systems, artificial intelligence, online pharmacy and medical databases, computerised patient records, healthcare information systems, and bioinformatics. Information technology applications such as telehealth, telemedicine, and robotics and automation in pharmacy are explained, including their implications on law and ethics of healthcare and business-related issues. Students will also be exposed to relevant skills in working with common operation systems through laboratory practical – usage of MS Office applications such as Word, Excel and Access in the context of professional communication, pharmacy and medical data management, and webpage development (HTML, JavaScript). Pharmacological and medical information using search engines and online databases, such as drug information databases, and online library catalogues are also emphasized through e-learning, group work. The integral part of the course is the development of web pages which can be learnt through e-learning and group work assignment. The students should be able to apply pharmacoinformatic concepts for pharmaceutical and hospital and clinical data.</p>		
<b>PHM 20103</b>	<b>Dosage Form Design I (Liquid &amp; Semi-Liquid)</b>	<b>3</b>
<p>This course aims to introduce students with the processing and manufacturing of liquid and semi-solid pharmaceutical dosage forms and the associated technology. It describes physiochemical properties of drugs and excipients, solution/emulsion/suspension, cream/ointment/lotion/gel, aerosol, extemporaneous preparation of liquid dosage forms, nanomedicine and advancement and Issues in community pharmacy through lectures, tutorial, e-</p>		

learning and group work. The students should be able to understand the concept of liquid and semi-liquid dosage forms and to conduct experiments that cover techniques, methods, and observation related to various pharmaceutical dosage forms.

<b>PHM 20202</b>	<b>Pharmacology of GIT &amp; Hepatobiliary System</b>	<b>2</b>
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This course aims to introduce students to pathophysiology and pharmacological approaches to gastrointestinal and hepatobiliary disorders. It outlines the structure and function of GIT, enteric and autonomic nervous system, diseases of GIT, and relevant treatment through lectures, practicals, e-learning and group work. The students should be able to explain the pathophysiology and pharmacological approaches to gastrointestinal and hepatobiliary disorders and initiate effective written communication for evidence based therapeutics in specified gastrointestinal and hepatobiliary disorders.

<b>PHM 20302</b>	<b>Phytochemistry</b>	<b>2</b>
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The course aims to provide students with the necessary skills for separation of the active constituents obtained from natural sources in addition to the different methods of separation (chromatography) and then identify these active ingredients either in pure form or a mixture- as well as the different methods to evaluate these components and how to deal with the side effects of some components (if any) and how to overcome and solve problems as well as how to deal with poisoning and abuse substances. The course includes laboratory experiments and application of basic phytochemicals and their pharmacological uses through lecture, e-learning, self-directed learning and group work. The students should be able to understand basic phytochemical chemistry principles and perform chemistry experiments that cover techniques, methods, observations and data collections

<b>PHM 20403</b>	<b>Pharmaceutical Biotechnology &amp; Immunology</b>	<b>3</b>
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This course provides a basic knowledge of the immune response and its involvement in health and disease. It also explores the basic concepts of biotechnology, examines the common tools and techniques of biotechnology and immunology, and learn how to incorporate biotechnology and immunology into the classroom to increase students' awareness of the industry and career opportunities. The delivery methods will be through lectures, e-learning, group work and tutorials. At the end of the course, students should be able to understand the basic knowledge and experiment procedures of biotechnology in combination with immune response and its involvement in health and diseases.

<b>PHM 20502</b>	<b>Personal Care Products and Medical Devices</b>	<b>2</b>
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This course introduces the students to the selection, importance of various products pertaining to medical devices, wound and skin care, hair care, colours make-up preparations, perfumery, baby products, dental care, and to regulatory aspects pertaining to their manufacture. Relevant physiology of skin and hair would also be dealt with. Aspects of good laboratory practice and good manufacturing practices would also be discussed. Teaching will be largely delivered via conventional lectures, tutorial and e-learning coupled with practical media and invited industrial speakers, while role-plays and video-making are featured to increase the immersive learning experiences. Students are expected

to obtain an overview of the common health products in community pharmacy and are able to better understand the role of the profession via the video project given.

<b>PHM 20602</b>	<b>Veterinary Pharmacy</b>	<b>2</b>
<p>The course aims at introducing students to etiology, sign and symptoms and treatment of common diseases in farm animals and pets using drugs. The contributing factors and symptoms of the main infectious diseases, food deficiency and metabolic dysfunction in domestic animals and pets would be analyzed. The students are expected to demonstrate the social communication in discussing common animal health, the dosage form and specific delivery systems of drugs available for treating animals. Aspects of responsibility and ethics in veterinary practice and its related regulations would also be discussed.</p>		
<b>PHM 20703</b>	<b>Pharmaceutical Analysis</b>	<b>3</b>
<p>The course introduces the students to basic techniques and instrumentation for analysis of drugs in various body fluids. Principles of extraction, separation and quantitative analysis, including titrimetry and gravimetry will be discussed. General principles of chromatography, spectroscopy, NMR, ESR, Mass spectrometry, Thermal analysis and introduction to Super Critical Fluid Chromatography will be dealt with. The course includes laboratory experiments and application of basic pharmaceutical analysis instrumentations through lecture, e-learning self-directed learning and group work. The students should be able to understand analytical chemistry principles, demonstrate good written reports and perform personal skills in analysing pharmaceutical products using pharmaceutical analysis techniques.</p>		
<b>PHM 20803</b>	<b>Pharmacognosy</b>	<b>3</b>
<p>This course covers the history, scope and development of pharmacognosy. Important aspects related to herbs such classification, cultivation, collection, harvesting and evaluation of crude drugs are covered. Other aspects covered are phytochemistry, plant biosynthesis, enzyme biotechnology, and plant tissue culture. Novel medicinal agents from marine source, study of herbal preparations, allergens, and new concepts such as nutraceuticals as well as important classes of phytochemicals is discussed. An overview is given of the important plants used in the management of cancer, diabetes, inflammation, liver disorders, hypertension and AIDS, as well as drug interactions between herbs and modern drugs. The course includes laboratory experiments and application of basic phytocompounds screening through lecture, e-learning, self-directed learning and group work. The students should be able to understand basic phytocompound chemistry principles and perform chemistry experiments that cover techniques, methods, observations and data collections.</p>		

<b>PHM 20903</b>	<b>Dosage Form Design II (Solid Pharmaceuticals)</b>	<b>3</b>
<p>This course is designed to provide the students with an understanding of the physicochemical characteristics of solid dosage forms. The course will outline pre-formulation and formulation, powder and agglomerates, capsules, tablet, transdermal products, inhalation products, suppository and pessary, nanomedicine and advancement, extemporaneous preparation of solid dosage forms and issues in community pharmacy through lectures, tutorial, e-learning and group work. The students should be able to understand the concept of solid dosage forms and to conduct experiments that cover techniques, methods, and observation related to various pharmaceutical dosage forms.</p>		
<b>PHM 21003</b>	<b>Cardiovascular, Renal &amp; Respiratory Pharmacotherapeutics</b>	<b>3</b>
<p>This course aims to introduce students to pathophysiology and pharmacological approaches to cardiovascular, renal and respiratory disorders. It outlines the introduction to respiratory system, diseases of cardiovascular, renal and respiratory systems, and relevant treatment through lectures, practicals, e-learning, self-directed learning and group work. The students should be able explain the pathophysiology and pharmacological approaches to cardiovascular, renal and respiratory disorders and initiate effective written communication for evidence based therapeutics in specified cardiovascular, respiratory and renal disorders.</p>		
<b>PHM 21102</b>	<b>Central Nervous System Pharmacotherapeutics</b>	<b>2</b>
<p>This course aims to introduce students to pathophysiology and pharmacological approaches to central nervous system disorders. It outlines the functions and dysfunctions of the motor system, and relevant treatment through lectures, practicals, e-learning, self-directed learning and group work. The students should be able to explain the pathophysiology and pharmacological approaches to central nervous system disorders and initiate effective written communication for evidence based therapeutics in specified central nervous system disorders.</p>		
<b>PHM 21202</b>	<b>Pharmacy Management</b>	<b>2</b>
<p>This course is designed to provide the students with the basic understanding and competencies necessary to assume a managerial role within various pharmacy settings, with emphasis on community pharmacy through lectures, project, group work and e-learning methods. In addition to the standard operating procedures in pharmaceutical settings, common managerial challenges are incorporated - management of customers, staff, finances, marketing and risks within the pharmaceutical sector in today's competitive business environment. Students should be able to apply the knowledge of basic principles and concepts in pharmacy management and demonstrate the teamwork and entrepreneurial skills in various pharmacy services.</p>		
<b>PHM 21302</b>	<b>Biopharmaceutics and Pharmacokinetics</b>	<b>2</b>
<p>This course covers the factors affecting drug absorption, bioavailability and the mathematical models used to describe the fate of a drug after its administration into the body. The students will also explore physicochemical factors, bioequivalence testing, compartment models and mathematical modelling, and estimation of pharmacokinetics parameters and its applications through lectures, tutorial, e-learning and group work. The students should be able to apply the</p>		

knowledge of biopharmaceutics and pharmacokinetics concepts in designing development of drug dosage regimes, able to present a good report and develop a good personal skills.

<b>PHM 30103</b>	<b>Research Methodology</b>	<b>3</b>
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This course exposes students to fundamental research methods including literature search, study designs, instrumentations, data collection techniques, study procedures, data analysis, results interpretation and final report writing. Learning through utilisation of computer softwares are importantly emphasized e.g. NVivo, EndNote. Teaching delivery are involved lectures, tutorials, e-learning, discussions and project. At the end of the course, their performance is measured via the preparation and presentation of a related research proposal (based on supervisors' research fields) and the final exam. Overall, this course equips students with the necessary exposure, knowledge and skills to conduct a small-scale research study in the final year's Pharmacy Research course.

<b>PHM 30202</b>	<b>Biostatistics</b>	<b>2</b>
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This course complements the Research Methodology course, as students will be learning basic statistical concepts and principles to assist data analysis and interpretation. Besides emphasis on the understanding of fundamental statistics and data presentation tools, practical sessions using the SPSS software are incorporated to facilitate actual analysis and exposure to data handling and management. This will help in their initial preparation of the research proposal and ultimately their discussion of research findings.

<b>PHM 30303</b>	<b>Formulation, Characterisation and Packaging</b>	<b>3</b>
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This course complements the Research Methodology course, as students will be learning basic statistical concepts and principles to assist data analysis and interpretation through lecture, tutorials, and e-learning. Besides emphasis on the understanding of fundamental statistics and data presentation tools, practical sessions using the SPSS software are incorporated to facilitate actual analysis and exposure to data handling and management. At the end of this course students should be able to use various biostatistical computer softwares and ultimately discuss their research findings.

<b>PHM 30402</b>	<b>Pharmacy Law and Ethics</b>	<b>2</b>
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In this course, students are prepared to qualify as ethical pharmacy practitioners in Malaysia. General topics include key ethical concepts such as human rights, consent, confidentiality and the care of vulnerable patients as well as the basis and application of ethical, moral and professional conducts in pharmacy practice are discussed through lectures, group work and e-learning. Student should be able to abide to the the country's pharmacy laws such as the Registration of Pharmacists Act, Code of Conduct For Pharmacists And Bodies Corporate, Poisons Act, Dangerous Drug Act and other related regulations are disseminated.

<b>PHM 30502</b>	<b>Manufacturing Pharmacy</b>	<b>2</b>
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This course aims to introduce principles pertinent to working in the pharmaceutical industry. It outlines Good Manufacturing Practice (GMP), quality management, guidelines on registration of a product, control of the manufacturing environment and raw materials, control of pharmaceutical preparations and related products, packaging, storage and distribution, process optimisation and regulatory requirements through lectures, e-learning, tutorial, self-directed learning and group work. The students should be able to formulate the critical elements that are required in the production of a pharmaceutical product, formulate communication skills in identifying the critical elements that are required in the production of a pharmaceutical product and relate the ethics and professionalism in the registration for a pharmaceutical product and principles of Good Manufacturing Practice.

<b>PHM 30602</b>	<b>Pharmacy Entrepreneurship</b>	<b>2</b>
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The course intends to impart knowledge, skills, and abilities that student pharmacists require to tap on future entrepreneurial opportunities in the profession. It is designed to allow early development of entrepreneurial interest and skills through both didactic and experiential work, in attempts to expand the pharmacists' role beyond its traditional dispensing and counselling nature. Basic exposures to entrepreneurship concepts, strategic planning, purchasing, merchandising and business competition are all provided through lectures, e-learning and group work. The ultimate goal is to generate as many successful pharmacy entrepreneurs so as to act as job creators to reduce the increasing employment burden faced by the government sector. Consequently the local communities will also benefit through more employment opportunities.

<b>PHM 30703</b>	<b>Endocrine, Reproductive &amp; Genito-Urinary System Pharmacotherapeutics</b>	<b>3</b>
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This course is designed to introduce students to the anatomy, physiology and pathophysiology of endocrine, reproductive and genito-urinary system. It outlines the introduction to endocrine, reproductive and genito-urinary system, diseases of the systems, and relevant treatment through lectures, e-learning, self-directed learning, practicals and group work. The students should be able to explain the pathophysiology and pharmacological approaches to endocrine, reproductive and genito-urinary disorders and initiate effective written communication for evidence based therapeutics in specified endocrine, reproductive and genito-urinary disorders.

<b>PHM 30802</b>	<b>Substance Use &amp; Abuse</b>	<b>2</b>
<p>This course provides students with knowledge about common abusable drugs coupled with the signs and symptoms of various types of drug abuse that leads an individual to become a drug addict through industrial visit, discussion, lecture, tutorial and e-learning. The treatment of addiction of various drugs and the impacts of drug abuse to the society and country are included. Additionally, the role of pharmacist in the management of drug use in society is emphasised via the recognition of individuals practicing irrational drug use or abuse with detrimental effects to the society. Recommendations on the appropriate management drug abuse will be discussed. At the end of this course student should be able to demonstrate the role of pharmacist in the prevention and treatment of substance use and abuse and formulate effective evidence-based solutions.</p>		
<b>PHM 30902</b>	<b>Business Studies for Pharmacists</b>	<b>2</b>
<p>This course is intended for students inclined to join or open up a new pharmacy business upon graduation. It provides a unique and challenging combination of general management principles, development of business proposal, intertwined with financial, accounting and pharmacy aspects which prepares students for future business settings through lectures, discussion, group work and e-learning methods. Student should be able to create innovative successful business plan infused with strong pharmacy professionalism that is community-friendly that benefit both population health and local socioeconomic status.</p>		
<b>PHM 31002</b>	<b>Chemometrics for Pharmaceutical Applications</b>	<b>2</b>
<p>The aim of the course is to explore chemometric techniques used in modern pharmaceutical practice and applications. This course covers different types of pharmaceutical science data and chemometric methods that include descriptive, parametric and non-parametric statistics. Analysis of variance, correlation and regression will be discussed. Methods of statistical process control, experimental design and optimization as well as modelling for pharmaceutical studies will also be introduced. The course includes application of quantitative methods to solve pharmaceutical and clinical related problems through lecture, e-learning, self-directed learning, problem-based learning and group work. The students should be able to appraise chemometric concepts, prepare effective written communication report and demonstrate digital skill for pharmaceutical and clinical data.</p>		
<b>PHM 31103</b>	<b>Antimicrobial &amp; Cytotoxic Pharmaceuticals</b>	<b>3</b>
<p>This course is designed to introduce students to the antimicrobial and cytotoxic therapy. It outlines the structure, classification and mechanism of action, pharmacological uses and adverse effects of various antimicrobial and cytotoxic agents through lectures, practicals, e-learning, self-directed learning and group work. The students should be able to analyze the pharmacological aspects of antimicrobials and cytotoxic therapy, initiate effective written communication for the pharmacology of antimicrobial and cytotoxic drugs and demonstrate personal skills and managerial skills in providing professional recommendations and managing various antimicrobial and cytotoxic drugs problems.</p>		

<b>PHM 31204</b>	<b>Therapeutics I (Cardiovascular &amp; Gastrointestinal Disorder)</b>	<b>4</b>
<p>This course provides students with aspects of pathophysiology and pharmacotherapy of common cardiovascular, and gastrointestinal tract disorders through lecture, tutorial, e-learning, case study and group work. Students are taught how to perform drug therapy assessment based on a case-oriented approach. From case studies, students use patient's information on clinical status including laboratory data and drug therapy to formulate desired therapeutic outcomes, identify drug related problems, counselling and monitoring. The students should be able to apply pharmaceutical care for common cardiovascular, and gastrointestinal tract disorders as well as to communicate the pharmaceutical care issues to other healthcare professionals.</p>		
<b>PHM 31303</b>	<b>Public Health Pharmacy</b>	<b>3</b>
<p>The course emphasises the importance of pharmacy practice and the expanding role of pharmacists in population health management. The two main branches of pharmacoepidemiology and pharmacoconomics are discussed and the relevant concepts laid out, particularly in the context of measurement, analysis, and research studies. Applications of pharmacoepidemiological tools and pharmacoconomics analysis are expected from students, who should also demonstrate a thorough understanding of the two relationships as well as being able to conduct research critique with regard to drug investigations.</p>		
<b>PHM 31405</b>	<b>Pharmacy Research</b>	<b>5</b>
<p>This course serves as a continuation from the Research Methodology course in the 5th semester whereby small-scale research (laboratory or field studies) would be conducted by the students in the pre-selected areas. For final assessment purposes, they are expected to present the outcomes orally as well as in the form of a dissertation (e.g., final report). The dissertation format closely follows one usually prepared for a postgraduate thesis according to the university regulations. Overall, students learn the vital hands-on research aspects, handling related issues as well as the techniques of proper academic writing, citing, referencing and where possible, conference presentation and publication in scientific journals.</p>		
<b>PHM 31503</b>	<b>Hospital Pharmacy Practice</b>	<b>3</b>
<p>This course provides students with perspective of providing various pharmacy services in the hospital setting such as drug information service, therapeutic drug monitoring, ward drug supply, outpatient drug supply, drug counselling and aseptic services. The delivery methods include lectures, e-learning and lab practical. The course is further strengthened by case-based discussions regarding networking, integrity and work responsibility during attachment/clerkship in the hospital. At the end of this course, students should be able to apply pharmaceutical care in hospital settings.</p>		
<b>PHM 40103</b>	<b>Therapeutics II (Endocrinological, Genitourinary Tract Disorders)</b>	<b>3</b>
<p>This course provides students with aspects of pathophysiology and pharmacotherapy of common endocrinological, and genitourinary tract disorders through lectures, e-learning, hospital attachment and case study. Students are taught how to perform drug therapy assessment based on a case-oriented approach. From case studies, students use patient's information on clinical status including laboratory data and drug therapy to formulate desired therapeutic</p>		

outcomes, identify drug related problems, counseling and monitoring. The students should be able to apply pharmacotherapy of common endocrinological, and genitourinary tract disorders, communicate the pharmaceutical care issues with other healthcare professional and maintain good professional ethics.

<b>PHM 40203</b>	<b>Clinical Pharmacokinetics and Pharmacogenomics</b>	<b>3</b>
<p>This course integrates aspects of pharmacokinetics and pharmacotherapy of selected drugs and disease states in patient care through lectures, e-learning, tutorials, field trip and case study. Students are taught how to perform pharmacokinetic calculations based on a case-oriented approach. From case studies, students use patient's information on clinical status including laboratory data, concentration data and drug therapy to formulate desired therapeutic plan and monitoring. This course provides student a basic understanding of the role of pharmacogenomics in clinical pharmacy practice especially on the aspects of polymorphism and variability in drug response. The students should be able to apply pharmacokinetics principles in specific pharmacotherapy in individualized patient, communicate the decision-making with other healthcare professionals and exhibit good ethics as a pharmacist.</p>		
<b>PHM 40303</b>	<b>Therapeutics III (Neurology, Psychiatry, Dermatology &amp; Pain)</b>	<b>3</b>
<p>This course provides students with aspects of pathophysiology and pharmacotherapy of common musculoskeletal, neurological, psychiatric disorders and dermatological diseases through lectures, e-learning, tutorials, field trip and case study. Students are taught how to perform drug therapy assessment based on a case-oriented approach. From case studies, students use patient's information on clinical status including laboratory data and drug therapy to formulate desired therapeutic outcomes, identify drug related problems, counseling and monitoring. The students should be able to apply pharmaceutical care common musculoskeletal, neurological, psychiatric disorders and dermatological diseases, communicate the pharmaceutical issues to other healthcare professionals &amp; maintain good ethics as pharmacists.</p>		
<b>PHM 40402</b>	<b>Medication Review Counselling</b>	<b>2</b>
<p>This course emphasis on the application of pharmaceutical care principal in drug counseling service, consultation and health promotion to patients with chronic diseases though lectures, e-learning, practical and case study. The main focus is to build talent and clinical skill to identify and solve drug used and drug taking problem. Techniques for clinical medication review (CMR) for patients with chronic diseases will be discussed. Community visits for Home medication review (HMR) will be arranged. At the end of the course the students should be able to address practical medicines optimization, medicines adherence and concordance issues which in turn, improve the effectiveness of medicines taken by patients bringing better clinical outcome.</p>		
<b>PHM 40502</b>	<b>Health Behaviour &amp; Health Education</b>	<b>2</b>
<p>This elective course prepares students of pharmacy to understand human behaviour in relation to health and interact effectively with the public in the process of imparting health education (which is part of health promotion) through lectures, e-learning, project discussion and field trip. Health behaviour theories that are most relevant to health education are essentially explored and the most current information on theory, research, and practice at individual, interpersonal, and</p>		

community and group levels is analysed. Current and emerging theories of health communication, e-health, culturally diverse communities, health promotion, the impact of stress, the importance of networks and community, social marketing, and evaluation are all included. To ensure constant touch with reality, students will also be exposed to field work i.e. community engagement programme, so that interaction with the public is encouraged. At the end of the course the students should be able to address factors underpinning health-related motivation and behavior by means psychological, sociological, and educational theories and should be able to design effective health education and promotion programs.

**PHM 40602**

**Smoking Cessation Certification Programme**

**2**

This course will teach student to screen, assess and treat people with tobacco dependence through lectures, e-learning, practical and group work discussion. Tools and techniques for enhancing motivation and running cessation groups are also covered. Aspects covered are major clinical implications of smoking prevalence, accurate information surrounding tobacco use and dependence, evidence-based screening and assessment tools and psycho-social interventions for tobacco dependence and evidence-based use of pharmacotherapies in tobacco cessation and their therapeutic use. The students will learn motivational interviewing strategies into clinical practice with clients who are ambivalent towards behaviour change with respect to treatment plans for specific populations with high tobacco use prevalence and/or risk. The student should learn about the clinical tools and resources to use in clinical practice and continuing professional development for strengthen smoking cessation strategies. At the end of this course the students will be able to learn tobacco control policy framework and also to communicate about harm reduction strategies to their clients. The students will learn to empathize with the clients who are not ready to quit smoking and communicate further to decide on smoking cessation.

**PHM 40704**

**Therapeutics IV (Infectious Disease, Oncology & Respiratory Diseases)**

**4**

This course provides students with aspects of pathophysiology and pharmacotherapy of common infectious and respiratory diseases, and cancer through lectures, e-learning, hospital attachment and discussion of case studies. Students are taught how to perform drug therapy assessment based on a case-oriented approach. From case studies, students use patient's information on clinical status including laboratory data and drug therapy to formulate desired therapeutic outcomes, identify drug related problems, counseling and monitoring. At the end of this course the students should be able to apply pharmaceutical care in common infectious disease, respiratory diseases and cancer, communicate pharmaceutical care issues to other healthcare professionals and exhibit good ethics as a pharmacist.

**PHM 40802**

**Toxicology**

**2**

This course is designed to introduce students to the basic topics in toxicology. It outlines the introduction to toxicology and toxicokinetics, mechanisms of toxicity, hepatotoxicity and pulmonary toxicity, heavy metal toxicity, nephrotoxicity and neurotoxicity, insecticides, herbicides, rodenticides and pesticides, venoms, and poisons and antivenoms through lectures, lab practicals, self-directed learning, e-learning and group work. The students should be able to explain the toxicity of different agents at various target organs and their management, initiate effective written communication for the toxicology of various poisoning agents and

demonstrate personal skills and managerial skills in providing professional recommendations and managing various toxicity problems.

<b>PHM 40902</b>	<b>Manufacturing Pharmacy Clerkship</b>	<b>2</b>
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This course is designed to provide the students with an experience in pharmaceutical manufacturing through industrial training. The course outlines Good Manufacturing Practice (GMP), quality management, guidelines on the registration of a product, control of the manufacturing environment and raw materials, control of pharmaceutical preparations and related products packaging, storage and distribution, and process optimisation and regulatory requirements through industry attachment. The students should be able to adapt the theories and concepts into the practical session in the workplace, display ethics and professionalism in the validation, quality assurance for process and analysis in the pharmaceutical industry and display entrepreneurial skills in work ethics, management, communication and human relations.

<b>PHM 41006</b>	<b>Community Pharmacy Clerkship</b>	<b>6</b>
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This is a 6-week unique course whereby students will initially be exposed to responding to symptoms to common minor ailments encounter at community pharmacy through e-learning, discussion, group work and practical demonstration for 2 weeks. They will then continue with real-life exposure and hands-on training on professional dispensing, counselling, over the counter (OTC) sales and general management of local retail/ community pharmacies for the remaining 4 weeks. It incorporates elements of HIEPs including Service Learning (SL), Interdisciplinary Approach to Assessment (ID), Internship (IN), Community-Based Learning (CBL), as well as flexible education with soul (FlexS) with an element of nobel character in responding to symptoms, students should be able to recognise the commonly minor ailments signs and symptoms and use an evidence-based approach to self-care treatment as well as acquire skills on customer interactions, sales, ordering of medicines and the overall business management.

<b>PHM 41102</b>	<b>Traditional &amp; Complementary Medicine</b>	<b>2</b>
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This course aims to introduce the students to traditional and complementary medicine. The course outlines history and philosophy of traditional and complementary medicines, Ethno medicines, Ayurveda/Unani medicines and practices, Chinese medicines and practices, homeopathy medicines and practices, Malay traditional medicines and practices, aromatherapy, nutrition, reflexology through e-learning, practical training, tutorial and group work discussion. The students should be able to demonstrate effective ethics and professionalism in explaining the basic concept of T & CM, types of T & CM services available in Malaysia, and the nasional policy and Act on T & CM, analyze the varieties of Malays, Chinese, and Indian traditional medicine system in analysing homeopathy medicine, and complementary medicine such as aromatherapy, chiropractic, flower therapy and reflexology and formulate personal skills in T & CM services.

### University Courses

NO.	COURSE CODE	COURSE NAME	CREDIT HOURS
1.	MPU 31062	Falsafah dan Isu Semasa	2
2.	MPU 31072	Penghayatan Etika dan Peradaban	2
3.	MPU 32092	Asas Pembudayaan Keusahawanan	2
4.	MPU 33012	Ilmu Wahyu & Sains	2
	MPU 33022	Moral Dan Etika II (Non-Muslim Student)	
5.	MPU 33032	Ilmu Wahyu dan Kemasyarakatan	2
	MPU 33042	Perbandingan Agama II (Non-Muslim Student)	
6.	PBI 10102	English for Communication I	2
7.	PBI 10202	English for Communication II	2
8.	PBI 10702	Bahasa Thai	2
	KK* *****	Co-Curriculum	3
<b>TOTAL CREDIT HOURS</b>			<b>19</b>

### Co-Curriculum Courses

NO.	CATEGORY	COURSE CODE	COURSE NAME
1	Kebudayaan	KKD 11003	Alat Muzik Moden
		KKD 11103	Koir
		KKD 10903	Muzik Gamelan
		KKD 10303	Muzik Kompang
		KKD 10403	Seni Tari
		KKD 10203	Taranum
		KKD 10503	Teater
2.	Teras Kemasyarakatan & Sukarelawan	KKV 10103	Projek Khidmat Masyarakat
		KKV 10203	Pemadam
3.	Teras Keusahawanan & Pembinaan Diri	KKN 10303	Asas Pengucapan Awam
		KKN 10603	Asas Kewartawanan
		KKN 10703	Fotografi
		KKN 10203	Katering
		KKY 10103	Pengakap Kelana Siswa I
		KKN 10503	Rakan Kaunselor
4.	Teras Sukan	KKX 11203	Asas Pelayaran
		KKX 11603	Bola Baling
		KKX 10803	Ekuestrian
		KKX 10903	Golf
		KKX 12003	Hoki
		KKX 12303	Karatedo
		KKX 11303	Kayak
		KKX 10503	Memamah
		KKX 12203	Rowing
		KKX 10203	Sepak Takraw
		KKX 10603	Taekwando
		KKX 10403	Tenis
		KKX 10703	Tenpin – Boling
5.	Teras Pasukan Pakaian Seragam Tanpa Senjata	KKY 10311	KOR SISPA I
		KKY10321	KOR SISPA II
		KKY20331	KOR SISPA III
		KKY20341	KOR SISPA IV
		KKY30351	KOR SISPA V

NO.	COURSE CODE	COURSE CODE	COURSE NAME
6.	Teras Pasukan Pakaian Seragam Bersenjata	KKW 10311	KOR PALAPES UDARA I
		KKW 10321	KOR PALAPES UDARA II
		KKW 20331	KOR PALAPES UDARA III
		KKW 20341	KOR PALAPES UDARA IV
		KKW 30351	KOR PALAPES UDARA V
		KKW 30361	KOR PALAPES UDARA VI
		KKW 10211	KOR-SUKSIS I
		KKW 10221	KOR-SUKSIS II
		KKW 20231	KOR-SUKSIS III
		KKW 20241	KOR-SUKSIS IV
		KKW 30251	KOR-SUKSIS V
		KKW 30261	KOR-SUKSIS VI
		KKW 10411	KOR SISKOR I
		KKW 10421	KOR SISKOR II
		KKW 20431	KOR SISKOR III
		KKW 20441	KOR SISKOR IV
		KKW 10611	WATANIAH NEGARA I
		KKW 10621	WATANIAH NEGARA II
		KKW 20631	WATANIAH NEGARA III
		KKW 20641	WATANIAH NEGARA IV
		KKW 30651	WATANIAH NEGARA V
		KKW 30661	WATANIAH NEGARA VI

## University Courses Synopsis

Course Code	Course Name	Credit Hours
<b>MPU 31062</b>	<b>Falsafah dan Isu Semasa</b>	<b>2</b>
	<p>Kursus ini merangkumi hubungan ilmu falsafah dengan Falsafah Pendidikan Kebangsaan dan Rukunegara. Penggunaan Falsafah sebagai alat untuk memurnikan budaya pemikiran dalam kehidupan melalui seni dan kaedah berfikir serta konsep insan. Topik utama dalam falsafah iaitu epistemologi, metafizik dan etika dibincangkan dalam konteks isu semasa. Penekanan diberi kepada falsafah sebagai asas bagi menjalin dialog antara budaya serta memupuk nilai sepunya.</p>	
<b>MPU 31072</b>	<b>Penghayatan Etika dan Peradaban</b>	<b>2</b>
	<p>Kursus ini menerangkan tentang konsep etika daripada perspektif peradaban yang berbeza. Ia bertujuan bagi mengenal pasti sistem, tahap perkembangan, kemajuan dan kebudayaan sesuatu bangsa dalam mengukuhkan kesepaduan sosial. Selain itu, perbincangan berkaitan isu-isu kontemporari dalam aspek ekonomi, politik, sosial, budaya dan alam sekitar daripada perspektif etika dan peradaban dapat melahirkan pelajar yang bermoral dan profesional. Penerapan amalan pendidikan berimpak tinggi (HIEPs) yang bersesuaian digunakan dalam penyampaian kursus ini.</p>	
<b>MPU 32092</b>	<b>Asas Pembudayaan Keusahawanan</b>	<b>2</b>
	<p>Kursus ini memberi pendedahan kepada pelajar tentang ilmu keusahawanan. Ia merangkumi konsep dan perkembangan keusahawanan, analisis kompetensi keusahawanan diri, etika keusahawanan dan kepentingan aspek kreativiti dan inovasi dalam keusahawanan. Ia juga membincangkan peluang perniagaan, kemahiran memulakan perniagaan, merancang perniagaan dan kemahiran mengurus projek perniagaan. Seterusnya pelajar perlu menyertai aktiviti keusahawanan secara praktikum, mereka didedahkan dalam segala aspek yang terlibat seperti perancangan modal, pemasaran seterusnya pembangunan produk dan proses. Latihan amali didedahkan kepada setiap pelajar secara melaksanakan projek keusahawanan dalam kumpulan.</p>	
<b>MPU 33012</b>	<b>Ilmu Wahyu &amp; Sains</b>	<b>2</b>
	<p>Kursus ini ditawarkan kepada pelajar bertujuan memberi pendedahan berhubung konsep dan kategori akidah, aliran pemikiran, wahyu dan sains. Isu dan cabaran dalam akidah masyarakat Islam juga ditimbulkan. Perbincangan sains yang terdapat di dalam al-Quran dan hadis (<i>al-ijaz al-'ilmi</i>) difokuskan kepada konsep wahyu dan sains, tokoh-tokoh sains Islam, sains fizikal, sains hayat, kejuruteraan dan kesenian Islam dan geologi. Perbincangannya dikupas dari aspek persamaan dan perbezaan di antara penemuan sains dengan fakta-fakta yang terdapat di dalam al-Quran dan hadis, dan hukum-hukum syariah berkaitan. Selain itu, pelajar juga diberi pendedahan ilmu al-Quran merangkumi makhraj huruf dan sifat-sifatnya, hukum-hukum nun sakinah dan tanwin, mim sakinah, mad dan qasar serta waqaf dan ibtida' dan sebagainya. Pelajar juga dikehendaki menghafaz surah-surah pilihan.</p>	

<b>MPU 33022</b>	<b>Moral Dan Etika II</b>	<b>2</b>
<p>Kursus ini mendedahkan kepada pelajar tentang konsep moral dan teori-teori etika dan sistem nilai; nilai agama, kepercayaan agar dapat diaplikasikan dalam kehidupan seharian. Konsep asas nilai, definisi, fungsi dan jenis-jenisnya seperti konsep kebaikan, kebahagiaan, kebenaran, kesalahan dan status moral akan diperkenalkan. Persoalan hak dan ilmu pengetahuan moral serta permasalahan etika akan diajar lebih mendalam. Nilai agama dan kepercayaan dalam masyarakat dan isu moral setempat serta <i>universal</i> akan diberi penekanan. Isu hak dalam masyarakat juga diberi pendedahan kepada pelbagai teori etika. Ajaran setiap agama mengenai moral dan etika akan dibincangkan. Kursus ini penting untuk membentuk personaliti individu dan membentuk nilai masyarakat majmuk di Malaysia.</p>		
<b>MPU 33032</b>	<b>Ilmu Wahyu dan Kemasyarakatan</b>	<b>2</b>
<p>Kursus ini membincangkan isu-isu kemasyarakatan yang terkandung dalam Al-Quran dan Hadis. Pelajar akan didedahkan kepada aspek ilmu akal, hubungan kekeluargaan, hubungan sosial, adab dan budaya, perhiasan, seni dan hiburan, globalisasi dan pemikiran, media dan dokumentari. Perbincangan difokuskan kepada garis panduan yang disediakan dalam al-Quran dan hadis dan peranannya dalam menangani isu-isu kemasyarakatan semasa yang berkaitan.</p>		
<b>MPU 33042</b>	<b>Perbandingan Agama II</b>	<b>2</b>
<p>Kursus ini membincangkan pelbagai aspek agama yang terdapat dalam dunia seperti Yahudi, Kristian, Islam, Hindu, Buddha dan Confusius. Sejarah kemunculan agama, aspek-aspek ketuhanan dan kepercayaan, kitab-kitab yang berkaitan dengan agama-agama turut dibincangkan dalam pembelajaran. Kursus Perbandingan Agama ini bukan hanya membincangkan aspek-aspek penting dalam agama-agama dunia, tetapi juga membentuk nilai-nilai beragama dalam masyarakat majmuk di Malaysia.</p>		
<b>PBI 10102</b>	<b>English for Communication I</b>	<b>2</b>
<p>This subject is designed to enable students to integrate basic communicational skills; reading, writing and speaking in promoting critical thinking and expressing their thoughts and opinions. Through this subject, the students will also be more aware of the current issues and allowing them to respond professionally and wisely by immersing themselves in classroom discussion, group work and presentation.</p>		
<b>PBI 10202</b>	<b>English for Communication II</b>	<b>2</b>
<p>The subject is designed to introduce students to a variety of communicational skills in the workplace to meet basic professional needs. Students will work with a variety of genres of professional communication, such as memos, meetings, etc. The assignments will require students to put into practice the various skills developed earlier such as integrating and presenting information, time management and group interaction. In order to accomplish these goals, class discussion, group work and in-class writing be used as tools for learning.</p>		
<b>PBI 10702</b>	<b>Bahasa Thai</b>	<b>2</b>
<p>This subject provides students with basic Thai language and its cultural awareness. Students are trained with communication skills in order to communicate at the primary level. Moreover, cultural topics will be inserted in the course to enhance students' understanding of the country's culture. Therefore, students will be more confident in communicating and performing tasks in the international environment.</p>		

## Co-Curriculum Courses Synopsis

Course Code	Course Name
<b>KKD 11003</b>	<b>Alat Muzik Moden</b>
	Kursus ini memberikan pendedahan asas kepada pelajar tentang konsep, teknik bermain alat muzik moden seperti alat muzik kugiran dan memerlukan kreativiti kumpulan semasa mengadakan persembahan.
<b>KKD 11103</b>	<b>Koir</b>
	Kursus ini akan memberikan pendedahan kepada pelajar asas menyanyi dengan cara mempelajari kaedah suara, teknik, penjiwaan dan persembahan yang betul serta membaca notasi lagu-lagu koir secara individu dan berkumpulan.
<b>KKD 10903</b>	<b>Muzik Gamelan</b>
	Kursus ini akan memberikan pendedahan kepada pelajar untuk mengenali, membaca nota dan memainkan alat-alat yang terkandung dalam muzik gamelan secara individu atau berkumpulan.
<b>KKD 10303</b>	<b>Muzik Kompang</b>
	Kursus ini memberikan pendedahan kepada pelajar tentang konsep dan permainan asas kompang, konsep bermain kompang dengan betul, mengenalpasti teknik permainan kompang dari segi rentak pukulan dan lagu, mengetahui cara memimpin kumpulan dan bekerjasama, dan memahami proses kompang dihasilkan.
<b>KKD 10403</b>	<b>Seni Tari</b>
	Kursus ini akan memberikan pendedahan kepada pelajar-pelajar menghasilkan persembahan yang berdaya kreatif tarian tradisional dan moden secara perseorangan dan berkumpulan.
<b>KKD 10203</b>	<b>Taranum</b>
	Kursus ini akan mendedahkan pelajar kaedah membaca Al-Quran secara berlagu di samping memperkenalkan jenis-jenis lagu yang digunakan ketika membaca Al-Quran.
<b>KKD 10503</b>	<b>Teater</b>
	Kursus ini akan mendedahkan pelajar kepada persediaan fizikal dan mental yang menjadi asas kepada lakonan. Persediaan fizikal termasuklah memahami latihan untuk olah tubuh dan vokal (pengucapan). Persediaan mental pula merujuk kepada proses memahami lakonan melalui latihan seperti improvisasi, bahasa badan ( <i>body language</i> ), pemerhatian dan penghayatan.
<b>KKV 10103</b>	<b>Projek Khidmat Masyarakat</b>
	Kursus ini pelajar akan didedahkan dengan program kemasyarakatan, kebajikan dan kesedaran. Pelajar juga akan diajar mengenai ciri-ciri kepimpinan dalam menguruskan sesebuah program kemasyarakatan. Pelajar akan melakukan kerja-kerja amal pada masyarakat tanpa mengira kaum dan agama.

<b>KKV 10203</b>	<b>Pemadam</b>	Kursus ini menerangkan aspek-aspek pengetahuan dan pendidikan asas sejarah dadah, jenis-jenis dadah dan kesan/akibat kepada manusia, penguatkuasaan undang-undang, profil seorang penagih dan bekas penagih, proses pemulihan di pusat serenti, penjara dan pelajar juga dibawa melawat ke pusat serenti dan penjara di dalam negara. Selain dari itu, mata pelajaran ini juga memberi peluang kepada pelajar untuk berinteraksi dengan pelatih melalui kaunseling berkelompok dan penganjuran kursus / bengkel dan seminar antidadah.
<b>KKN 10303</b>	<b>Asas Pengucapan Awam</b>	Kursus ini menekankan konsep-konsep asas dalam pengucapan awam bagi membina kecekapan berpidato dan berucap di kalangan pelajar. Bakat dan pengetahuan dalam bidang komunikasi umum yang ada pada pelajar akan digilap melalui latihan-latihan amali pengucapan.
<b>KKN 10603</b>	<b>Asas Kewartawanan</b>	Kursus ini memberi pendedahan serta mengenalkan panduan-panduan dalam menghasilkan bahan berita di dalam akhbar menerusi pelbagai isu semasa dalam dan luar negara demi kepentingan umum melalui media cetak dan elektronik di negara ini.
<b>KKN 10703</b>	<b>Fotografi</b>	Kursus ini bertujuan memberi pendedahan dan kemahiran fotografi kepada pelajar-pelajar. Aspek-aspek teori dan pratikal serta teknik-teknik pengambilan foto yang menarik diberi penekanan. Pelajar berpeluang menghayati seni foto dengan mempraktikkan kombinasi teknologi kamera fotografi digital dan analog (SLR kamera).
<b>KKN 10203</b>	<b>Katering</b>	Kursus ini dibentuk bertujuan untuk mendedahkan pelajar kepada kemahiran dalam bidang katering. Para pelajar akan diberi penerangan dan tunjuk ajar dalam pelbagai aspek penyediaan makanan, pengurusan dapur, prinsip makanan dan juga perkhidmatan katering.
<b>KKY 10103</b>	<b>Pengakap Kelana Siswa I</b>	Kursus ini memperkenalkan ilmu kepengakapan, sejarah, struktur organisasi, ilmu asas perkhemahan, kawad kaki, istiadat pengakap, kerja tali-menali, mengagak serta ilmu perkhemahan. Kursus ini menekankan kepimpinan Manikayu yang akan melayakkan mereka menjadi pemimpin.
<b>KKN 10503</b>	<b>Rakan Kaunselor</b>	Rakan Kaunselor merupakan subjek yang menekankan aspek-aspek kemahiran asas kaunseling yang dapat digunakan oleh pelajar mata pelajaran ini untuk membantu diri, rakan pelajar, keluarga dan masyarakat sekelilingnya menangani masalah. Selain dari itu mata pelajaran ini memberi peluang kepada pelajar untuk mempelajari kemahiran mengurus dan memimpin dalam sesebuah organisasi.
<b>KKX 11203</b>	<b>Asas Pelayaran</b>	Kursus ini memperkenalkan pelajar kepada pengetahuan-pengetahuan asas dan kemahiran-kemahiran asas pelayaran dan ia juga memperlihatkan pelajar kepada sejarah pelayaran, mengetahui jenis dan bahagian kapal layar. Pelajar juga harus melayarkan kapal layar.

<b>KKX 11603</b>	<b>Bola Baling</b>	Kursus ini akan memberikan pendedahan kepada pelajar-pelajar akan kemahiran membuat hantaran, rejaman dan tangkapan yang baik dalam bola baling, mengaplikasikan peraturan dalam permainan ini serta berkemahiran dalam penyediaan padang dan alatan permainan ini.
<b>KKX 10803</b>	<b>Ekuestrian</b>	Kursus ini memperkenalkan kepada pelajar sukan berkuda, sejarah serta perkembangannya. Pelajar juga akan dibawa menerokai alam kehidupan kuda dan bagaimana menjalin persahabatan dengan haiwan ini serta pelajar dapat mempelajari dan mengenal pasti peralatan-peralatan menunggang, ilmu mengenai kesihatan kuda dan teknik-teknik asas menunggang kuda.
<b>KKX 10903</b>	<b>Golf</b>	Kursus ini mendedahkan peraturan sukan golf, latihan kecergasan, asas pengadilan, teknik permainan dan penganjuran sukan golf.
<b>KKX 12003</b>	<b>Hoki</b>	Kursus ini memberi pendedahan mengenai asas permainan Hoki, mendidik cara memimpin kumpulan dan kerjasama antara ahli pasukan serta menyihatkan tubuh badan.
<b>KKX 12303</b>	<b>Karatedo</b>	Kursus ini akan memberikan pendedahan kepada pelajar-pelajar akan pengetahuan asas mengenai teknik, peraturan-peraturan permainan dan mengambil bahagian dalam pertandingan <i>Karate-do</i> .
<b>KKX 11303</b>	<b>Kayak</b>	Kursus ini menawarkan pendedahan asas kepada kemahiran berkayak, teknik-teknik kayuhan yang betul, peraturan dan kod keselamatan semasa berkayak atau semasa menjalankan aktiviti di air.
<b>KKX 10503</b>	<b>Memanah</b>	Kursus ini menekankan kepada pelajar tentang undang-undang dan peraturan permainan sukan memanah, pelajar juga diberikan tumpuan tentang kemahiran-kemahiran asas sukan memanah khususnya dari segi teknik yang betul serta pendedahan penganjuran kejohanan mini.
<b>KKX 12203</b>	<b>Rowing</b>	Kursus ini akan memberikan pendedahan kepada pelajar-pelajar akan pengetahuan asas mengenai teknik, peraturan-peraturan permainan dan mengambil bahagian dalam pertandingan <i>Rowing</i> serta menyihatkan tubuh badan.
<b>KKX 10203</b>	<b>Sepak Takraw</b>	Kursus ini memperkenalkan kepada pelajar-pelajar bagaimana bermain Sepak Takraw dengan betul, asas-asas kepada kemahiran bermain Sepak Takraw, undang-undang permainan Sepak Takraw, serta melibatkan pelajar dengan latihan bermain dan menganjur mengendalikn suatu pertandingan kecil dan juga menyertainya.
<b>KKX 10603</b>	<b>Taekwando</b>	Kursus ini memberi pendedahan terhadap pengurusan fizikal secara saintifik dalam sukan <i>Tae kwon-do</i> . Pembentukan sahsiah dan jati diri yang seimbang serta mencetuskan semangat daya juang tinggi dalam menghadapi dan mengharungi cabaran kehidupan harian.

<b>KKX 10403</b>	<b>Tenis</b>	Kursus ini memperkenalkan pelajar kepada pengetahuan-pengetahuan asas dan kemahiran-kemahiran asas permainan tenis dan ia juga memperlihatkan pelajar kepada seni pergerakan dan teknik sesuatu pergerakan atau kemahiran yang dilakukan serta teknik boleh menganjurkan pertandingan/kursus.
<b>KKX 10703</b>	<b>Tenpin – Bowling</b>	Kursus ini akan memberikan pendedahan kepada pelajar-pelajar akan strategi permainan, pengetahuan dalam peralatan serta pengurusan, pemarkahan pertandingan tenpin bowling.
<b>KKY 10311</b>	<b>KOR SISPA I</b>	Kursus ini akan memberi ruang kepada pelajar mempelajari ilmu kemahiran pertahanan awam dan melahirkan lebih ramai pegawai Pertahanan Awam yang berkaliber serta mampu menghadapi cabaran global. Pegawai Pertahanan awam akan diberi pengetahuan tentang pengetahuan asas pertahanan awam, asas pertolongan cemas, kemahiran asas melawan kebakaran, kemahiran asas menyelamatkan dan etika moral.
<b>KKY10321</b>	<b>KOR SISPA II</b>	Pelajar berpeluang menimba beberapa lagi pengetahuan asas pertahanan awam yang lain termasuklah kawad usungan, ikatan dan simpulan tali, manual keselamatan bagi operator gergaji berantai serta sains kebakaran dan alat pemadam api, teknik pembacaan peta dan kompas mengurus pusat bantuan/makanan kecemasan serta pengetahuan tentang bencana alam.
<b>KKY20331</b>	<b>KOR SISPA III</b>	Kursus ini adalah lanjutan kepada Kor SISPA II. Ianya memberi penekanan kepada kegunaan <i>power cutter</i> dan alat hidraulik, penggunaan peralatan ambulan, tatacara keselamatan dan latihan <i>ascending &amp; descending</i> , kaedah menyelamatkan diri dari tempat tinggi serta pengenalan kepada peralatan, ' <i>Basic Trauma &amp; Life Support</i> '.
<b>KKY20341</b>	<b>KOR SISPA IV</b>	Kursus ini akan memberikan penekanan kepada khidmat kecemasan 999 termasuklah pengurusan bilik gerakan/MERS 999, pengendalian dan penyelenggaraan serta sistem komunikasi (radio dan prosedur am komunikasi). Pelajar juga akan berpeluang belajar ilmu pengurusan bencana dan krisis, kaedah pengurusan latihan serta kaedah pengurusan pasukan.
<b>KKY30351</b>	<b>KOR SISPA V</b>	Dalam kursus ini pelajar akan diberikan ilmu berkenaan pengendalian mesyuarat, simulasi pengendalian mesyuarat serta komunikasi berkesan. Sahsiah, etika pegawai dan kepimpinan juga akan ditekankan bagi melahirkan seorang pegawai SISPA yang berkaliber. Pelajar juga akan dilatih mengenai etiket dan protokol termasuklah pengurusan majlis rasmi, etiket dalam perbualan sosial, etiket ketika makan beradat serta kursus kejurulatihan kemahiran kepada bakal pegawai yang akan dijalankan di Pusat Latihan.
<b>KKW 10311</b>	<b>KOR PALAPES UDARA I</b>	Kursus ini mendedahkan kepada para pelajar mengenai asas ketenteraan, etika tentera dan mengamalkan sifat setia kawan serta memupuk seorang pelajar itu menjadi seorang pemimpin yang berkualiti.

**KKW 10321 KOR PALAPES UDARA II**

Kursus ini mendedahkan kepada para pelajar berkenaan dengan etika kerja dan ianya dapat menguruskan segala maklumat serta idea baru melalui asas ketenteraan yang merangkumi latihan-latihan ilmu medan perang (IMP).

**KKW 20331 KOR PALAPES UDARA III**

Kursus ini mendedahkan kepada para pelajar berkenaan dengan etika kerja dan ianya dapat menguruskan segala maklumat serta idea baru melalui asas ketenteraan yang merangkumi latihan-latihan ilmu medan perang (IMP).

**KKW 20341 KOR PALAPES UDARA IV**

Kursus ini dapat mendedahkan etika tentera kepada para pelajar bagaimana untuk berkongsi pandangan setiap aktiviti ketenteraan dan memupuk kerjasama dalam satu kumpulan serta berkemahiran untuk mengkoordinasikan latihan Ilmu Medan Perang (IMP).

**KKW 30351 KOR PALAPES UDARA V**

Kursus ini mendedahkan kepada para pelajar Asas Latihan Ketenteraan melalui latihan-latihan yang dijalankan pada tahap tinggi.

**KKW 30361 KOR PALAPES UDARA VI**

Kursus ini mendedahkan kepada para pelajar Asas Latihan Ketenteraan melalui latihan-latihan yang dijalankan pada tahap tinggi.

**KKW 10211 KOR-SUKSIS I**

Kursus ini adalah untuk melahirkan seorang Pegawai Sukarelawan Polis Siswa/Siswi (Kor-SUKSIS) yang berpengetahuan tentang undang-undang berkaitan, latihan mingguan, urusan latihan, pentadbiran, daya kepimpinan, disiplin serta ketahanan fizikal/metal yang sesuai di antara pasukan polis dan Universiti.

**KKW 10221 KOR-SUKSIS II**

Kursus ini adalah untuk melahirkan seorang Pegawai Sukarelawan Polis Siswa/Siswi (Kor-SUKSIS) yang berpengetahuan tentang undang-undang berkaitan, latihan mingguan, urusan latihan, pentadbiran, daya kepimpinan, disiplin serta ketahanan fizikal/metal yang sesuai di antara pasukan polis dan Universiti.

**KKW 20231 KOR-SUKSIS III**

Kursus ini adalah untuk melahirkan seorang Pegawai Sukarelawan Polis Siswa/Siswi (Kor-SUKSIS) yang berpengetahuan tentang undang-undang berkaitan, latihan mingguan, urusan latihan, pentadbiran, daya kepimpinan, disiplin serta ketahanan fizikal/metal yang sesuai di antara pasukan polis dan Universiti.

**KKW 20241 KOR-SUKSIS IV**

Kursus ini adalah untuk melahirkan seorang Pegawai Sukarelawan Polis Siswa/Siswi (Kor-SUKSIS) yang berpengetahuan tentang undang-undang berkaitan, latihan mingguan, urusan latihan, pentadbiran, daya kepimpinan, disiplin serta ketahanan fizikal/metal yang sesuai di antara pasukan polis dan Universiti.

**KKW 30251 KOR-SUKSIS V**

Kursus ini adalah untuk melahirkan seorang Pegawai Sukarelawan Polis Siswa/Siswi (Kor-SUKSIS) yang berpengetahuan tentang undang-undang berkaitan, latihan mingguan, urusan latihan, pentadbiran, daya kepimpinan, disiplin serta ketahanan fizikal/metal yang sesuai di antara pasukan polis dan Universiti.

**KKW 30261 KOR-SUKSIS VI**

Kursus ini adalah untuk melahirkan seorang Pegawai Sukarelawan Polis Siswa/Siswi (Kor-SUKSIS) yang berpengetahuan tentang undang-undang berkaitan, latihan mingguan, urusan latihan, pentadbiran, daya kepimpinan, disiplin serta ketahanan fizikal/metal yang sesuai di antara pasukan polis dan Universiti.

**KKW 10411 KOR SISKOR I**

Kursus ini akan memberi ruang kepada pelajar mengetahui dengan lebih terperinci mengenai Jabatan Penjara Malaysia termasuklah objektif, fungsi, misi, visi, motto dan Lagu Jabatan. Pelajar juga akan diperkenalkan dengan Akta Penjara dan Peraturan Penjara, Asas Kesukarelawan termasuk peranan dan tugas sukarelawan, Kepimpinan Sukarelawan, Kod Etika SISKOR dan latihan fizikal (Kawad Kaki)/SENTAP.

**KKW 10421 KOR SISKOR II**

Kursus ini akan menekankan kepada dasar kerajaan mengenai sukarelawan termasuklah mentor dan *coaching* serta kerja berpasukan dalam sukarelawan. Pelajar juga akan diperkenalkan kepada Dasar kepenjaraan termasuklah halatuju dan kerjaya di Jabatan Penjara Malaysia. Pengenalan kepada pemulihan, Parol dan Khidmat komuniti selain dari latihan fizikal (kawad kaki setiap minggu).

**KKW 20431 KOR SISKOR III**

Kursus ini akan menekankan kepada etiket sosial dan protokol, keselamatan fizikal penjara, strategik keselamatan, Rumah Pengantaraan, pengoperasian Rumah Perantaraan di samping latihan fizikal kawad senjata pada setiap minggu. Pelajar juga akan dibawa melawat Rumah Perantaraan bagi melihat pengoperasian rumah tersebut.

**KKW 20441 KOR SISKOR IV**

Pada tahap ini pelajar-pelajar akan diberi maklumat mengenai tatacara pemakaian seragam JPM, risikan dan siasatan, aspek-aspek pemulihan termasuklah vokasional dan industri di samping asas kemahiran penghuni. Program Pemulihan Pemasarakatan (PPP) juga akan diperkenalkan. Antara yang akan disentuh termasuklah kepentingan dan keperluan PPP, peruntukan undang-undang, usahasama dengan agensi luar serta lawatan ke Pusat Pemulihan Pemasarakatan. Latihan fizikal di peringkat ini akan lebih menekankan kepada Formasi Tamat Latihan.

**KKW 10611 WATANIAH NEGARA I**

**KKW 10621 WATANIAH NEGARA II**

**KKW 20631 WATANIAH NEGARA III**

**KKW 20641 WATANIAH NEGARA IV**

**KKW 30651 WATANIAH NEGARA V**

**KKW 30661 WATANIAH NEGARA VI**

## Grading System

A student **must pass with at least Grade C** for all registered courses offered by the faculty. The students will be assessed by continuous assessment and end-of-semester examination. The academic achievement of students will be graded as follows:

Marks (%)	Grade	Grade Points	Performance
80-100	A	4.00	Distinction
75-79	A-	3.67	
70-74	B+	3.33	Honours/Good
65-69	B	3.00	
60-64	B-	2.67	Average
55-59	C+	2.33	
50-54	C	2.00	
47-49	C-	1.67	Fail
44-46	D+	1.33	
40-43	D	1.00	
0-39	F	0.00	

The overall academic achievement is based on Grade Point Average (GPA) from all the registered courses in a particular semester. Cumulative Grade Point Average (CGPA) is the GPA accumulated by a student from one semester to another throughout the years of study.

Please refer to *Buku Peraturan Akademik Prasiswazah UniSZA* for the details on student's academic information.

**Career Prospect**

## Registered Pharmacist in Malaysia

