



COLLEGE OF PHARMACY

CURRICULUM APPROVAL AND AMENDMENT MANUAL

A summarized source of policies and procedures guiding the College's approvals and amendments for its program and courses.

Prepared by

Head, COP Curriculum Committee

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Curriculum Committees

Curriculum Committee 2020-2024

Reporting to:

Dr. Manal Mohammed Alem
Dean, College of Pharmacy

Chairperson:

Dr. Mohammed Khanfar
Professor of Medicinal Chemistry

Members:

Dr. Ahmed Aljedai,
Dr. Abdulrazag Aljazairi
Dr. Atef Shibl

Curriculum Committee 2024-to date

Chairperson:

Dr. Adeola T. Kola-Mustapha
Assistant Professor of Pharmaceutics

Members:

Dr. Ahmed Aljedai
Dr. Abdulrazag Aljazairi
Dr. Abdullah Alrajhi
Dr. Muthanna Albaldawi
Dr. Atef Shibl

Introduction

The curriculum amendment manual provides a summary of the policies and procedures followed by the College of Pharmacy Alfaisal University (COP-AU) in the development, approval, and modification of courses offered in the Pharm D program. For COP AU to achieve its mission and aims, and any plans for new program introduction must align with the Saudi Arabia Qualification Framework (SAQF). Curriculum development is guided by the AU Guiding Principles and Core Values, which are derived from respect for Islamic principles and international best practices. The COP-AU Curriculum Committee is saddled with the responsibility of recommending the approval of new courses, reviewing and suggesting modifications to current Pharm D courses as well as new initiatives and amendments to its current academic program. The process of reviewing curriculum is ongoing, requiring the collaboration of faculty, students, and alumni to create a contemporary program that satisfies global standards and gives our graduates the knowledge and abilities they will need for their future careers.

Goals and Objectives

COP AU curriculum committee is tasked with duties as included in the terms of reference schematic diagram in Figure 1 as a guide. The goal is to review and offer suggestions regarding requests to add, remove, or alter the College of Pharmacy's courses and programs. This culminates into the sets of objectives designed to capture the monitoring, evaluating and continuously improving the Pharm D curriculum.

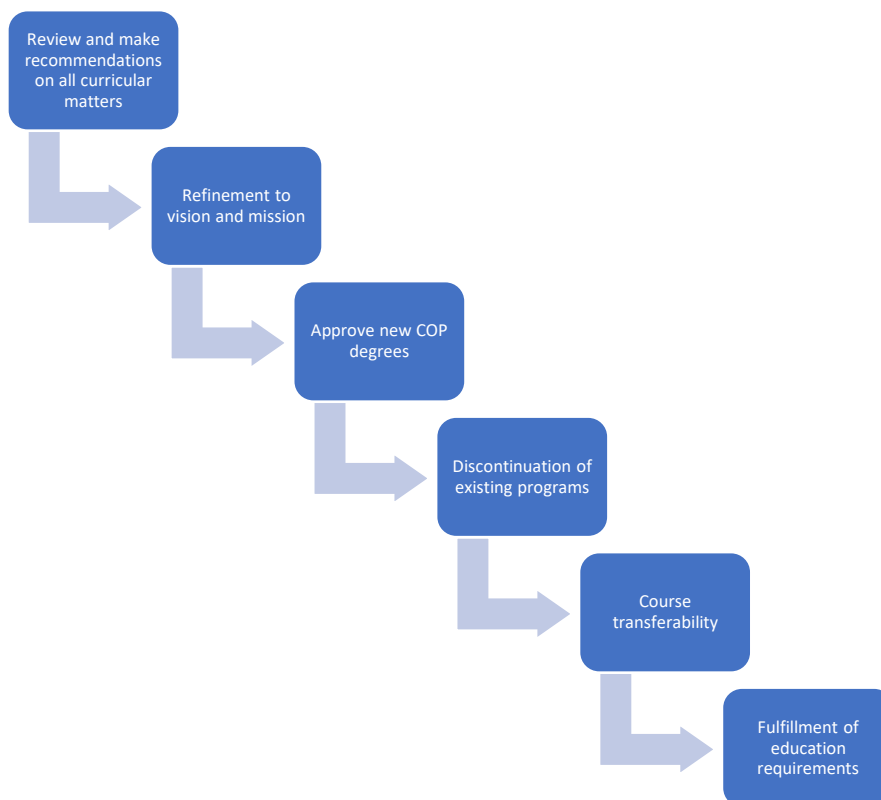


Figure 1: COP AU Curriculum Committee Operation Terms of Reference

Curriculum Committee Structure

The COP AU curriculum committee comprises of the chairperson (reports directly to the College Dean) and the members of the committee as presented in Figure 2.

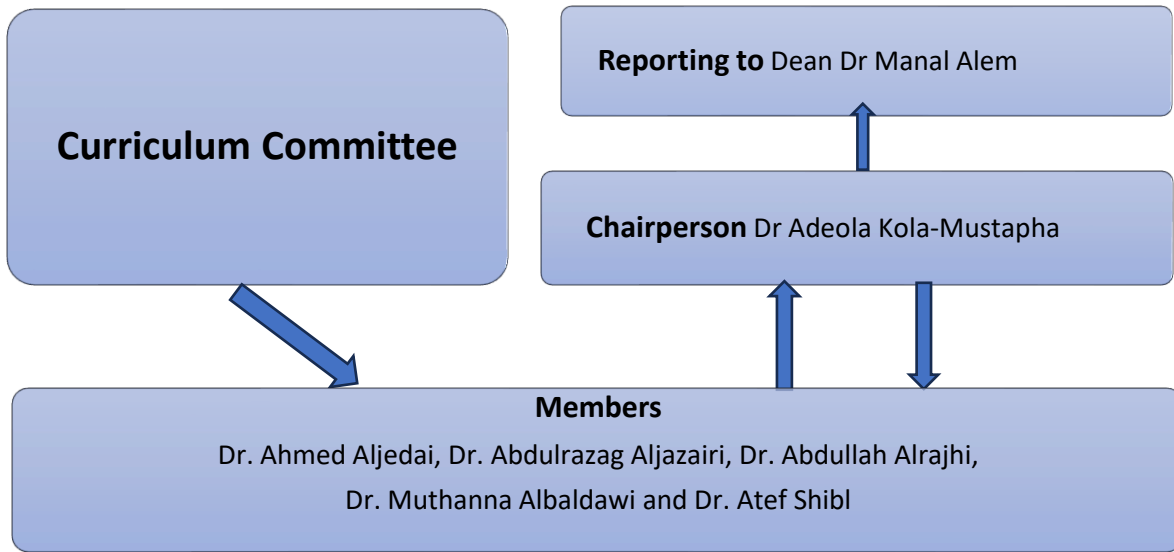


Figure 2: COP AU Curriculum Committee Structure

The College Operational Plan

The COP AU curriculum committee is guided by the operational plan which is illustrated in Figure 3.

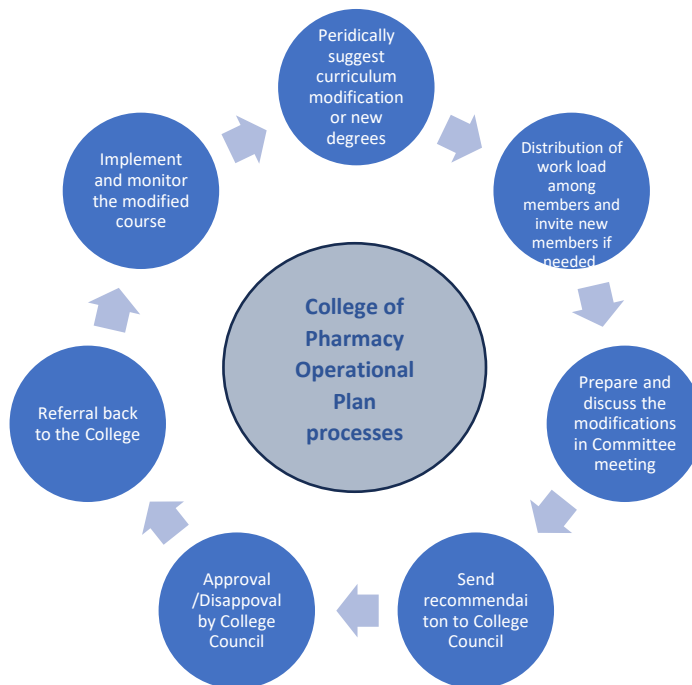


Figure 3: COP AU Curriculum Committee Operational Plan

Approval of Pharm D Courses

The proposed new course requires approval by the COP AU curriculum committee. This begins with the development of a course syllabus for the proposed course in accordance with the standards established by the COP AU by the Program Coordinator. The new course syllabus is presented to the COP AU curriculum committee at a scheduled meeting, for review of the content by its members. Necessary modifications to the course syllabus are proposed at the curriculum committee meeting. Suggested modifications and the approval/disapproval of the proposed course are contained in the minutes of the specific meeting. The Program Coordinator make necessary changes to the course syllabus and re-present to the curriculum committee. The final course syllabus and the minutes of the meetings are presented to the Dean and the COP College Council for deliberation and approval.

In addition, AU has a well-established formal approval process for its programs, which consists of a structured information flow and approval process. The planning process for university programs includes a thorough feasibility and local market analysis that consider the stakeholders, constituents, and the larger context of the AU. Figure 4 illustrates the AU undergraduate program approval procedure and protocol.

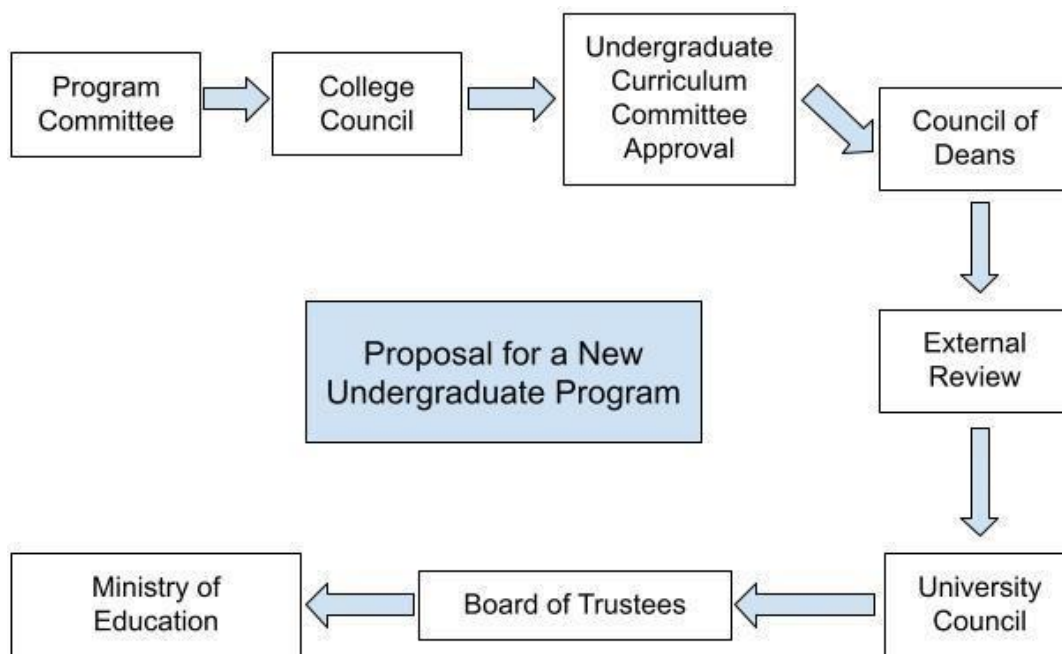


Figure 4: AU Undergraduate academic program approval protocol

The goals of the new specialisations must be included in proposals for new bachelor programs, together with a feasibility analysis that covers the demands of the market, student sources; and the approval of an external reviewer. The program committee needs to review the CVs of the current faculty members to ascertain whether faculty members are available to conduct the course (or whether fresh faculty recruiting is planned). The program director, who must be full-time and possess a PhD in the same program major, must be identified in the proposal. In addition, the program committee must investigate

and document the experiences of Arab, foreign, and local universities and consider what will be needed in the future in terms of implementing local and global standards for academic certification. The proposed program needs to be compared to both domestic and foreign programs, and it needs to have all the required Course Action Request Forms (presented in Appendix 1) and NCAAA supporting paperwork. All proposals for new programs and courses must go through a rigorous and comprehensive approval process once the documentation is finished, at the department, college, and university levels.

The program is then submitted to the Council of Deans for review and confirmation that it is in line with the departmental, college, and university purpose statements after receiving approval from the Under Graduate Curriculum Committee (UCC). The proposed curriculum must next be submitted for external scrutiny before being reviewed by the University Council. The Board of Trustees and the Ministry of Education are the next bodies to review the proposal. While the development of new programs has different timelines, the clearance process may usually be finished in eight to ten months.

Amendments to Existing Programs and Courses

To guarantee ongoing relevance and quality, all programs are continuously reviewed. For programs that are already in place, surveys and other forms of indirect assessments, in addition to direct assessments, are gathered and examined to make improvements. Figure 5 illustrates the approval procedure for changing an existing program or set of courses.

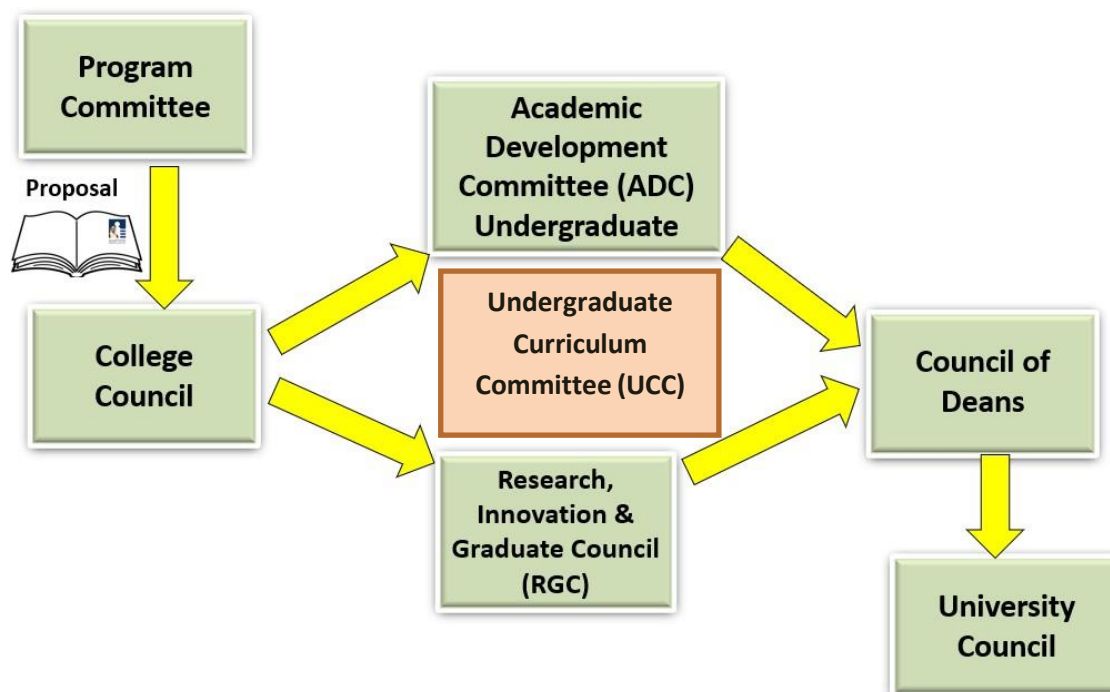


Figure 5: Approval process for amending existing programs and courses

Faculty members can analyse students' achievement levels based on the learning objectives for a course, offer advice on how to improve the course report by pointing out relevant course material and

instructional strategies. Likewise, recommendation for program improvement are recorded in the annual report of the program, which is based on analysis of the program's learning outcomes using both direct and indirect assessments. To determine if the changes to the course specification are significant or not, the program coordinator holds internal discussions within the department, which often involve the program/college QAA committee and the program advisory board. The amended course specification is reviewed by the COP AU curriculum committee. These discussions are then methodically summarised. After that, the decision taken by the curriculum committee as documented in the minutes, is communicated to the College Dean and College Council. The department and college mission, as well as the needs of present and potential students and the labour market, serve as the College Council's guiding principles.

The College Council, the UCC, the Council of Deans, and the University Council must all approve any significant program modifications. A substantial alteration is one that has an impact on the program's delivery, structure, organisation, or learning objectives. Furthermore, the approval procedure for alterations to current programs and courses in Figure 5 must be followed for adding new courses to already-existing programs, altering course names and numbers, and changing prerequisite and corequisite requirements. The college must provide the justification for the modifications, the approved minutes from the College Council and Curriculum Committee, and the necessary paperwork, such as the Alfaisal University Course Action Request Form and the course specifications, to start the process.

Steps of the Study Plan Revision

1. Constitution of the Curriculum Committee:

The curriculum committee is a permanent committee. The committee is responsible for overseeing, assessing, and continuously enhancing the Pharm D curriculum and other COP initiatives. To draft the new curriculum, it was set up with representatives from the College of Pharmacy Quality Assurance and Accreditation (COP-QAA) Office and each department.

2. Establishing the Quality Assurance and Accreditation Office:

The COP-QAA office has a designated space with the primary responsibility to oversee the course content, monitor the implementation of all quality standards in the teaching process. Furthermore, the QAA office creates the necessary surveys, compiles the questionnaires, and delivers the data analysis results to the curriculum committee.

3. Steps of Curriculum Revision

- i. The College of Pharmacy Alfaisal University (COP-AU) was established upon its approval on 08/04/2016 by the Ministry of Education and advocated by letter number 34000 on 20/11/2017 by the Ministry of Higher Education (MOE).
- ii. The Pharm D program was initiated by its first student intake in the 2016/2017 academic session.

- iii. At the start of the Pharm D program, the curriculum was created to integrate the social, administrative, and behavioural sciences, clinical sciences, and pharmaceutical sciences while systemically providing a strong basis in the fundamental sciences.
- iv. The teaching philosophy is based on the curriculum model known as "SPICES" (Students-centered/active learning, Problem/practice based, Integrated, Community/systems-based, Electives and Systematic methods).
- v. The curriculum establishment committee cited the Accreditation Council for Pharmacy Education (ACPE) criteria, the international institutions' curricula, and some Saudi universities' curricula that adhere to NCAAA requirements.
- vi. The initial College Advisory Board, which was composed of individuals with extensive academic backgrounds from the United States and the United Kingdom, including representatives from Harvard Medical School, Massachusetts College of Pharmacy and Health Sciences, and Strathclyde Institute of Pharmacy & Biomedical Sciences, supervised the establishment of the Pharm D curriculum.
- vii. They provided invaluable input on the field training specifications, the study plan, and the integration strategy recommended by the head of the Curriculum Establishment Committee.
- viii. The task of discussing and debating COP AU's novel curriculum was taken on by the Curriculum Committee. While deliberating, the committee looked at the curricula of a few local and international universities that grant Pharm D degrees. A sample of all integrated disciplines was also reviewed by the advisory board, which resulted in final revisions to the college's study plan, course requirements, and laboratory set ups.
- ix. The Curriculum Committee created the Pharm D program after conducting a thorough investigation and receiving support from all relevant parties.
- x. The new study plan's primary framework, which comprises the total number of hours, the number of courses, and their allocation among the departments, was produced.
- xi. The departments examined and made modifications to the new research plan outline based on their recommendations.
- xii. The departments adjusted the courses in compliance with the NCAAA format using the new requirements.
- xiii. The committee gathered the altered courses and organised them according to the stipulated outline.
- xiv. The course materials were examined to make sure there was no duplication or overlap.
- xv. A review of the course sequence was conducted.
- xvi. The departments received the suggested study plan back for final adjustment.
- xvii. A new course numbering scheme was implemented to prevent curriculum overlap.
- xviii. Each course includes the standards of skills and knowledge evaluations.
- xix. The suggested study plan was given to the Dean and all the teaching faculty for review. The comments received were gathered and considered for the final revision.
- xx. In terms of the study design, the stakeholder's views were considered when the study plan was further modified.
- xxi. External reviewers received the study plan's final version for final editing with the representatives from the following bodies:

- a. Harvard Medical School
- b. Massachusetts College of Pharmacy and Health Sciences
- xxii. The study plan's final version was created after considering the reviewers' comments.
- xxiii. The final study plan was bench marked against those of King Saud University Riyadh's College of Pharmacy, Al Maarefa University Riyadh, King Saud Bin Abdul-Aziz University for Health Sciences, Qassim University and US pharmacy schools, University of Massachusetts, University of Florida and University of North Carolina at Chapel Hill.
- xxiv. The College Council deliberated and approved the final study plan.

Program Outline

The program outline is presented in Table 1.

Table 1: Pharm D. program specific courses for COP-AU

Modules/Courses	No of Courses	Credit hours
Program-specific	63	164
Others	12	34
Total	75	198

Pharm D. Curriculum Plan

Course Distribution

Year 1-Phase 1 Semester 1							
Course code	Course title	Credit hour	Theory	Lab	Tutorial /Practical	Pre-requisite	Co-requisite
PCHE 101	Chemistry I	3	2	1	-	-	-
PHSF 101	Human Structure and Function I	4	3	1	-	-	-
PAM 101	Algebra	3	3	-	-	-	-
PENG 005	English 005	4	UPP criteria are available for exemption from English courses. Those who are exempted from English are required to register for Study and Communication Skills (PSCS 101)				
PENG 006	English 006	4					
Total credit hour		10					

Year 1-Phase 1 Semester 2							
Course code	Course title	Credit hour	Theory	Lab	Tutorial /practical	Pre-requisite	Co-requisite
PCHE 112	Chemistry II	3	2	1	-	-	-
PHSF 112	Human Structure and Function II	4	3	1	-	-	-
PPHYM112	Physics for Medicine and Life Sciences	3	3	-	-	-	-
PBIO 112	Principles of biochemistry	3	3	-	-	-	-
PENG 007	English 007	3	UPP criteria are available for exemption from English courses.				
PENG 008	English 008	3					
Total credit hour		13					

Year-2—Phase 2 Semester 3							
Course code	Course title	Credit hour	Theory	Lab	Tutorial /practical	Pre-requisite	Co-requisite
ENG 231	Medical terminology	2	2	-	-	-	-
CHM 232	Organic chemistry	4	3	1	-	PCHE 101/112	-
ANT 233	Anatomy and histology	4	3	1	-	PHSF 101/112	PHY 234
PHY 234	Physiology	3	3	-	-	PHSF 101/112	ANT 233
MAT 235	Calculus	3	2	-	1	PAM 101	-
ARB 102	Elective; Arabic Language I	2	2	-	-	-	-
Total credit hours		18					

Year 2-phase 2 Semester 4							
Coursecode	Course title	Credit hour	Theory	Lab	Tutorial/practical	Pre-requisite	Co-requisite
MCH 241	Medicinal chemistry	4	3	1	-	CHM 232	-
BCH 242	Biochemistry	4	3	1	-	-	-
MIC 243	Microbiology	3	2	1	-	-	-
IMM 244	Immunology	2	2	-	-	-	-
BST 245	Biostatistics and basic research methods	3	2	-	1	-	-
ISL 102	Elective; Islamic studies I	2	2	-	-	-	-
Total credit hours		18					

Year 3- Phase 2 Semester 5							
Coursecode	Course title	Credit hour	Theory	Lab	Tutorial/practical	Pre-requisite	Co-requisite
CAL 351	Pharmacy calculations	1	-	-	1	MAT 235	-
KIN 352	Pharmacokinetics	3	2		1	MAT 235	-
PHC 353	Pharmaceutics I: Dosage forms and stability	3	2	1	-	-	-
MIC 354	Advanced microbiology	2	1	1	-	MIC 243	-
IMM 355	Clinical immunology	1	1	-	-	IMM 244	-
PRC 356	Pharmacy practice and health care systems	3	3	-	-	-	-
ARB 113	Elective: Arabic language II	2	2	-	-	-	-
ESP 224 PSY 101 SOC 101 SCI 310	Elective	3	3	-	-	-	-
Total credit hours		18					

Electives available: English for Specific Purposes **ESP 224**, Introduction to psychology **PSY 101**, Introduction to sociology **SOC 101**, and Forensic science **SCI 310**

Year 3-Phase 2 Semester 6							
Course code	Course title	Credit hour	Theory	Lab	Tutorial/ practical	Pre-requisite	Co- requisite
PHC 361	Pharmaceutics II: Drug delivery	2	2	-	-	PHC 353	-
PTH 362	Parenteral therapy	2	1	1	-	PHC 353 CAL 351	-
REG 363	Pharmacy regulations and health ethics	2	2	-	-	-	-
SCR 364	Self-care and non- prescription drugs	1	1	-	-	-	BPH 365
BPH 365	Basic pharmacotherapy	3	3	-	-	-	BPH 366
BPH 366	Basic pharmacotherapy; case-based seminars	1	-	-	1	-	BPH 365
BPH 367	Pharmacotherapy of antimicrobial agents	3	3	-	-	MIC 354 MCH 241	-
ISL 113	Elective; Islamic studies II	2	2	-	-	-	-
Total credit hours		16					

Year 4- Phase 3 Semester 7							
Course code	Course title	Credit hour	Theory	Lab	Tutorial/ practical	Pre-requisite	Co-requisite
MTM 471	Medication therapy management	2	2	-	-	BPH 365	-
DIT 472	Drug information and evidence-based practice	3	2	1	-	-	-
IPH 473	Integrated pharmacotherapy I, CVS and Renal I	3	3	-	-	BPH 365	IPH 474
IPH 474	Integrated pharmacotherapy I: CVS and Renal I "case-based seminars"	1	-	-	1	BPH 366	IPH 473
IPH 475	Integrated pharmacotherapy MSK and RES	3	3	-	-	BPH 365	IPH 476
IPH 476	Integrated pharmacotherapy II: MSK and RES "case-based seminars"	1	-	-	1	BPH 366	IPH 475
PCL 477	Patient care and health system management lab, I	2	1	1	-	BPH 366	IPH 473 IPH 474 IPH 475 IPH 476
PHG 478	Elective/ selective Pharmacogenomics and personalized medicine	2	2	-	-	-	-
Total credit hours		17					

Year 4-Phase 3 Semester 8							
Course code	Course title	Credit hour	Theory	Lab	Tutorial/practical	Pre-requisite	Co-requisite
KIN 481	Clinical pharmacokinetics	2	1	-	1	KIN 352	-
ECO 482	Pharmacoeconomics and healthoutcomes	3	3	-	-	-	-
IPH 483	Integrated pharmacotherapy IV, Endocrine and Women's Health	3	3	-	-	BPH 365	IPH 484
IPH 484	Integrated pharmacotherapy IV: Endocrine and Women's Health "case-based seminars"	1	-	-	1	BPH 366	IPH 483
IPH 485	Integrated pharmacotherapy III, CNS	3	3	-	-	BPH 365	IPH 486
IPH 486	Integrated pharmacotherapy III: CNS "case-based seminars"	1	-	-	1	BPH 366	IPH 485
PCL 487	Patient care and health systemmanagement lab II	2	1	1	-	BPH 366	IPH 483 IPH 484 IPH 485 IPH 486
CAM 488	Elective/ selective Complementary and alternativemedicine	2	2	-	-	-	
Total credit hours		17					

IPP 489 Introductory Pharmacy Practice Experience (IPPE) I- 4 weeks training in the summertime in; Community service/pharmacy, and pharmacies in primary health care centers.

Year 5-Phase 3 Semester 9							
Course Code	Course title	Credit hour	Theory	Lab	Tutorial/practical	Pre-requisite	Co-requisite
IPH 591	Integrated pharmacotherapy V, CVS and Renal II	3	3	-	-	IPH 473	IPH 592
IPH 592	Integrated pharmacotherapy V:CVS and Renal I "case-basedseminars"	1	-	-	1	IPH 474	IPH 591
IPH 593	Integrated pharmacotherapy VI, Infectious disease	3	3	-	-	BPH 365 BPH 367	IPH 594
IPH 594	Integrated pharmacotherapy VI:Infectious disease "case-based seminars"	1	-	-	1	BPH 366 BPH 367	IPH 593
PCL 595	Patient care and health systemmanagement laboratory III	2	1	1	-	PCL 477 PCL 487	IPH 591 IPH 592 IPH 593 IPH 594

IPP 596	Introductory Pharmacy practice experience (IPPE) II (out-patient pharmacy)	2	-	-	2	-	-
RES 5X6 A	Research project	0	0	0	0	BST 245	-
PHI 597 MRT 598 MIM 599	Elective	3	3	-	-	-	-
Total credit hours		14					

Electives available: Pharmaceutical industry **PHI 597**, Marketing for pharmacists **MRT 598**, Medical imaging for pharmacists **MIM 599**

Year 5-Phase 3 Semester 10							
Course code	Course title	Credit hour	Theory	Lab	Tutorial/practical	Pre-requisite	Co-requisite
IPH 5X1	Integrated pharmacotherapy VII, Haematology/Oncology /Palliative Care/ GIT	3	3	-	-	BPH 365	IPH 5X2
IPH 5X2	Integrated pharmacotherapy VII: Haematology/Oncology/ Palliative Care/ GIT “case based seminars”	1	-	-	1	BPH 366	IPH 5X1
MSF 5X3	Medication safety and health informatics	3	2	1	-	-	-
PCL 5X4	Patient care and health system management laboratory IV	2	1	1	-	PCL 477 PCL 487	IPH 5X1 IPH 5X2
IPP 5X5	Introductory Pharmacy practice experience (IPPE) III (in-patient pharmacy)	2	-	-	2	-	-
RES 5X6 B	Research project	3	-	-	3	BST 245	-
Total credit hours		14					

6th year Advanced pharmacy practice experience rotations (APPE)	
Core rotations	Selective/ Elective rotations (Select 3-5)
5 core rotations are mandatory for all Ambulatory care General internal medicine Institutional pharmacy practice Community pharmacy practice Pharmacy administration and management	General pediatrics Infectious diseases Cardiology Adult critical care Drug Information TPN Adult haematology/Oncology
Free/ Elective rotations (Select 0-2)	
Organ Transplant Nephrology Acute care Pharmacy automation and informatics Surgery Paediatric/ neonatal critical care	Investigational drug services Medication safety Pharmacy quality improvement Pharmaceutical industry Regulatory affairs Medical Toxicology
Total	40 weeks
Pre-requisite for all rotations are IPP 489, IPP 596, IPP 5X5	

All students after finishing phase 3, are expected to finish 10 rotations for 45 weeks of advanced pharmacy practice experience. 5 core rotations are mandatory for all. From the elective rotations, (3-5) can be chosen from the selective/ elective rotations, and the remaining ones (0-2) are freely chosen from the free elective list. This proposed structure is the make most of the rotations focused on direct patient care and communication.

APPENDIX 1



Course Action Request Form (CARF) Alfaisal University

College/ Department Discipline:

PROPOSAL TO:

- Establish a New Course
- Discontinue a Course
- Change Number/Title of a Course
- Change Course Description or Prerequisites
- Change Course Credit Hours
- Establish Alternative Delivery System/Course
- Cross Listing of a Course

Proposed Effective Date for Requested Action (Semester and Year)

Present Course Title:	
Present Course No:	
Present Credit Hours:	
Proposed Course Title: (list SAME if no changes)	
Proposed Course No.: (list SAME if no changes)	
Proposed Credit Hours: (list SAME if no changes)	
Effective Term of Action: (Semester and Year)	
Academic Enrollment Ceiling Limit	
Grading Scheme	
Organizational Responsibility	
Funding Source	
Weekly Contact Hours	

- **If establishing a new course:**
 1. Indicate the projected enrollment in the course, justify the course in terms of student need, and the relationship to other courses in the departmental curricula (core, major, elective, etc.) and to the total educational curricula of the university:
 2. If a comparable course is offered in another unit, justify any duplication:
 3. Will the course be adding hours or substituting hours in a curriculum?
 4. Include Proposed Catalog Description (including credit hours, prerequisites)

Prerequisite:

5. Include a complete syllabus:

Special Features

1. List programs presently being offered for which this course will be used to meet requirements.
2. Provide a list of faculty members who may teach the course and their qualifications.
3. Discuss any special physical facilities needed to support the proposed new course, such as laboratories, teaching and research equipment, seminar room etc.:
4. If the course is in an area in which professional certification is advisable, explain how the course will contribute to certification.
5. Projected new costs associated with the course, including facilities, faculty, library, research and teaching supplies, technical assistance, or other related expenses.

CARF Approvals

Recommending Authority	Approved	Denied	Signature	Date
Chair, College Curriculum & Instruction Committee				
Chair of the Department				
College Dean				
Chair, Academic and Development Committee (ADC)/ Chair, Graduate Council (For graduate courses only)				
Council of Deans (<i>only for undergraduate courses</i>)				

Final Approval:

Vice President for
Academic Affairs

Date

Copies of final approved document go to Dean of Admissions and Records and Dean, Office of Research & Graduate Studies.

Dean of Admissions and Records _____

Date Received in the Office Dean of Admissions and Records / Scheduling _____

Action Taken _____

Approved on
Revised on
Version ADC 1