

SULTAN-UL-ULOOM COLLEGE OF PHARMACY

(Estd. by Sultan-ul-Uloom Education Society)

Approved by AICTE & Pharmacy Council of India

Affiliated to Jawaharlal Nehru Technological University, Hyderabad

B.Pharm Program Accredited by NBA

Recognized under Section 2(f) & 12(B) of the UGC Act, 1956



Program: M. Pharm (Pharmacy Practice)

Duration: 2 years

COURSE OUTCOMES

I YEAR I Semester

COURSE CODE	COURSE NAME	COURSE OUTCOMES Upon completion of this course it is expected that students shall be able to:
6615AA	Pharmacotherapeutics- I (Professional Core - I)	CO 1: describe and explain the rationale for drug therapy
		CO 2: summarize the therapeutic approach for management of various disease conditions including reference to the latest available evidence
		CO 3: discuss the clinical controversies in drug therapy and evidence-based medicine
		CO 4: prepare individualized therapeutic plans based on diagnosis
		CO 5: identify the patient specific parameters relevant in initiating drug therapy, and monitoring therapy (including alternatives, time- course of clinical and laboratory indices of therapeutic response and adverse effect/s). Etiopathogenesis and pharmacotherapy of diseases associated with following systems
6615AB	Clinical Pharmacy Practice (Professional Core - II)	CO 1: understand the elements of pharmaceutical care and provide comprehensive patient care services
		CO 2: interpret the laboratory results to aid the clinical diagnosis of various disorders
		CO 3: provide integrated, critically analyzed medicine and poison information to enable healthcare professionals in the efficient patient management.
6615AC	Clinical Toxicology (Professional Elective – I)	CO 1: handle the first aid, elimination enhancement and treatment of poisoning and supportive care in poisoning due to Pesticides
		CO 2: handle the first aid, elimination enhancement and treatment of poisoning and supportive care in poisoning due to Drug over usage
		CO 3: handle the first aid, elimination enhancement and treatment of poisoning and supportive care in poisoning due to Heavy

		metals and Radiation
		CO 4: handle the first aid, elimination enhancement and treatment of poisoning and supportive care in poisoning due to Snakes and arthropod bites
		CO 5: gains knowledge in substance abuse and treatment of drug dependence.
6615AG	Advances in Preclinical Evaluation (Professional Elective – II)	CO 1: understand the care and handling experimental animals
		CO 2: understand drug rules and regulations for conducting animal studies
		CO 3: know about preclinical & clinical studies of different ANS drugs and their models.
6615AJ	Research Methodology and IPR	CO 1: understand research problem formulation.
		CO 2: analyze research related information
		CO 3: follow research ethics
		CO 4: understand that today's world is controlled by Computer, Information Technology, but tomorrow world will be ruled by ideas, concept, and creativity.
		CO 5: understanding that when IPR would take such important place in growth of individuals & nation, it is needless to emphasis the need of information about Intellectual Property Right to be promoted among students in general & engineering in particular.
		CO 6: understand that IPR protection provides an incentive to inventors for further research work and investment in R & D, which leads to creation of new and better products, and in turn brings about, economic growth and social benefits.
661501	Pharmacotherapeutics – I Lab	CO 1: discuss the controversies in drug therapy, therapeutic plans based on diagnosis.
		CO 2: discuss the preparation of individualized
		CO 3: identify the patient-specific parameters relevant in initiating drug therapy.
		CO 4: monitoring of drug therapy (including alternatives, time-course of clinical and laboratory indices of therapeutic response and adverse effects).
661502	Clinical Pharmacy Practice Lab	CO 1: assess prescriptions for drug interaction and answer drug information query
		CO 2: perform patient counselling on medication and conduct medication history interview

		CO 3: analyse and interpret the data obtained through laboratory tests
		CO 4: conduct planned experiments and prepare laboratory report in a standard format
6615AM	Disaster Management Audit Course – I	CO 1: learn to demonstrate a critical understanding of key concepts in disaster risk reduction and humanitarian response.
		CO 2: critically evaluate disaster risk reduction and humanitarian response policy and practice from multiple perspectives
		CO 3: develop an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
		CO 4: critically understand the strengths and weaknesses of disaster management approaches
		CO 5: planning and programming in different countries, particularly their home country or the countries they work in

I YEAR II Semester

COURSE CODE	COURSE NAME	COURSE OUTCOMES Upon completion of this course it is expected that students shall be able to:
6615AV	Pharmacotherapeutics – II (Professional Core – III)	CO 1: describe and explain the rationale for drug therapy
		CO 2: summarize the therapeutic approach for management of various disease conditions including reference to the latest available evidence
		CO 3: discuss the clinical controversies in drug therapy and evidence based medicine
		CO4: prepare individualized therapeutic plans based on diagnosis
		CO 5: identify the patient-specific parameters relevant in initiating drug therapy, and monitoring therapy of Nervous system, Psychiatric disorders, Infectious diseases & Oncology
6615AW	Clinical Pharmacokinetics and Drug monitoring (Professional Core – IV)	CO 1: apply PK-PD principles in cases using patient data to optimize pharmacotherapy and drug dosing for maximal efficacy and minimal toxicity.
		CO 2: recognise, document and manage drug dosing in cases involving significant patient pharmacokinetic variability due to physiology or disease (eg age, obesity, pregnancy, malabsorption, organ dysfunction, critical illness, therapeutic target site).
		CO 3: recognize, characterize and manage cases with clinically

		significant PK-PD drug interactions.
		CO 4: demonstrate appropriate therapeutic drug management (TDM) in cases with medications for which concentrations can be measured or predicted from available PK research data.
6615AZ	Quality use of Medicines (Professional Elective – III)	CO 1: understand the principles of quality use of medicines
		CO 2: know the benefits and risks associated with use of medicines
		CO 3: understand regulatory aspects of quality use of medicines
		CO 4: identify and resolve medication related problems
		CO 5: practice evidence-based medicines
6615BA	Principles of Drug Discovery (Professional Elective – IV)	CO 1: explain the various stages of drug discovery.
		CO 2: appreciate the importance of the role of genomics, proteomics and bioinformatics in drug discovery
		CO 3: explain various targets for drug discovery
		CO 4: explain various lead seeking method and lead optimization
		CO 5: appreciate the importance of the role of computer aided drug design in drug discovery
661503	Pharmacotherapeutics – II Lab	CO 1: importance of Evidence Based Medicine and Use of Rational Drug Use in patient care
		CO 2: Case study on neurology, oncology
		CO 3: importance of Serum drug concentration.
		CO 4: understanding the soap format in pharmacotherapeutics.
661504	Clinical Pharmacokinetics and Drug Monitoring Lab	CO 1: Importance of inventory control
		CO 2: Importance of drug information services
		CO 3: pharmacovigilance
		CO 4: medication errors and its importance in patient care
6615AK	English for Research Paper Writing Audit Course – II	CO 1: understand that how to improve your writing skills and level of readability
		CO 2: learn about what to write in each section
		CO 3: understand the skills needed when writing a Title Ensure the good quality of paper at very first-time submission

II YEAR I Semester

COURSE CODE	COURSE NAME	COURSE OUTCOMES Upon completion of this course it is expected that students shall be able to:
6615BD	Biostatistics (Professional Elective – V)	CO 1: understand the Biostatistics arrangement
		CO 2: know the presentation and formation of tables and charts
		Co 3: learn the correlation and regression
		Co 4: gain the knowledge of analysis of data
		Co 5: learn the Hypothesis testing
6615BM	Audits and Regulatory Compliance (Open Elective)	CO 1: explain the importance of auditing in the pharmaceutical industry.
		CO 2: discuss the different types of audits that are conducted in the pharmaceutical industry.
		CO 3: identify the key steps involved in the audit process.
		CO 4: gather evidence to support audit findings.
		CO 5: prepare an objective and comprehensive audit report.
		CO 6: develop a checklist to use during the audit process.