Program	Master of Pharmacy (M.Pharm)	**Semester - 2**
Type of Course	-	
Prerequisite		
Course Objective	-	
Effective From A.Y.	2023-24	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	External Marks (T)	Internal Marks (T)	External Marks (P)	Internal Marks (P)	Total Marks
-	-	12	6	-	-	100	50	150

SEE *- Semester End Examination,* ***CIA*** *- Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)*

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
1	Organic contaminants residue analysis by HPLC	6	4
2	Estimation of Metallic contaminants by Flame photometer	4	2
3	Identification of antibiotic residue by TLC	6	4
4	Estimation of Hydrogen Sulphide in Air	4	2
5	Estimation of Chlorine in Work Environment	6	2
6	Sampling and analysis of SO2 using Colorimetric method	4	2
7	Qualification of following Pharma equipment a. Autoclave b. Hot air oven c. Powder Mixer (Dry) d. Tablet Compression Machine	30	25
8	Validation of an analytical method for a drug	20	10
9	Validation of a processing area	6	4
10	Qualification of at least two analytical instruments	20	10
11	Cleaning validation of one equipment	8	4
12	Qualification of Pharmaceutical Testing Equipment (Dissolution testing apparatus, Friability Apparatus, Disintegration Tester)	20	10
13	Check list for Bulk Pharmaceutical Chemicals vendors	6	3

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
14	Check list for tableting production	6	3
15	Check list for sterile production area	6	3
16	Check list for Water for injection	6	3
17	Design of plant layout: Sterile and non-sterile	10	3
18	Case study on application of QbD	6	3
19	Case study on application of PAT	6	3
	Total	180	100

Suggested Distribution Of Theory Marks Using Bloom's Taxonomy

Level	Analyze	Evaluate
Weightage	60	40

NOTE : This specification table shall be treated as a general guideline for the students and the teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Course Outcomes

At the end of this course, students will be able to:	
CO1	Ability to perform Qualification of Instruments and validation of analyical methods
CO2	Understanding of Cleaning validation, preparation of checklist and case studies