

Guru Nanak Institute of Pharmaceutical Science & Technology
B. PHARM 4th YEAR 7TH SEMESTER

CO label	CO Statement	BTL
CO. 711.1	Understand the electromagnetic spectrum and its interaction with matter and apply this knowledge for drug analysis	2, 3
CO. 711.2	Explain and analyze the principle, instrumentation, applications of UV, IR and Atomic Absorption Spectroscopy, Fluorimetry, Flame photometry	2, 4
CO. 711.3	Understand the chromatographic separation and analyze the drugs using these techniques	2, 4
CO. 711.4	Explain the principle and instrumentation of GC and HPLC and design their application in pharmacy/formulate their use over basic chromatography	2, 6
CO712.1	Recall various terminologies and stoichiometric calculations involved in Pharmaceutical Analysis.	1
CO712.2	Illustrate the role of pharmaceutical analysis in the profession.	2
CO712.3	Distinguish the various principles of conventional techniques.	4
CO712.4	Evaluate the various techniques and tools available for the analysis of any chemical substance.	5
CO713.1	Develop the pharmaceutical dosage forms by applying various considerations	5
CO713.2	Understand the criteria for the selection of drugs and polymers to develop the Novel drug delivery system	2
CO713.3	Apply various approaches to formulate various novel drug delivery systems	3
CO713.4	Discuss the cGMP aspects in pharmaceutical industry	2
CO713.5	Classify the responsibilities of QC and QA departments	2
CO713.6	Explain the process validation methods for pharmaceutical operations	5
CO714.1	To explain different parameters required for drug delivery.	2
CO714.2	To choose proper surgical products.	3
CO714.3	To choose and justify use of proper pharmaceutical packaging materials.	1,3,5

CO714.4	Develop the ability to formulate different pharmaceutical dosage form.	6
CO714.5	To build knowledge about formulation development.	3

CO PO MAPPING

Sl. No	Course outcome	Program Outcome											
		O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	O11	O12
1.	CO 711.1	3	2	1	2	3	2	2	3	3	2	3	1
	CO 711.2	3	1	2	2	1	1	1	2	1	1	1	1
	CO 711.3	3	3	3	2	3	2	2	3	3	1	3	3
	CO 711.4	3	3	2	2	3	2	2	2	3	3	3	3
2.	CO712.1	3	3	2	2	3	1	1	2	1	1	2	2
	CO712.2	2	3	2	3	3	2	2	2	2	2	-	2
	CO712.3	2	3	2	-	-	1	-	-	-	1	-	2
	CO712.4	3	3	-	1	-	2	2	-	-	-	-	2
3.	CO713.1	3	3	3	2	3	2	1	2	1	-	-	3
	CO713.2	2	3	2	3	3	2	2	2	2	2	-	2
	CO713.3	3	3	2	2	2	2	2	2	2	2	-	2
	CO713.4	3	3	3	2	3	2	2	3	3	1	3	3
	CO713.5	3	3	2	2	3	2	2	2	3	3	3	3
	CO713.6	3	3	2	2	3	1	1	2	1	1	2	2
4.	CO714.1	3	1	1	1	-	2	3	2	1	1	1	3
	CO714.2	3	3	1	1	-	2	2	1	3	1	2	3
	CO714.3	3	-	1	1	2	3	-	3	2	2	2	2
	CO714.4	3	3	2	1	3	1	1	2	1	1	2	2
	CO714.5	3	3	3	2	3	2	1	2	1	-	-	3