

Programme Structure (PharmD)

Compulsory modules

Level one: 1st Semester

Module Code	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Marks
CSP101n	Information Technology	None	2(1+1)	15	25	-	20	40	100
ENG 101n	English for Academic Purposes and Medical Terminology	ELAT exam	2(1+1)	15	25	-	20	40	100
PHC 121	Pharmaceutical Analytical Chemistry (1)	None	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHC 111	Pharmaceutical Organic Chemistry (1)	None	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHG 111	Medicinal Plants	None	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHT 111	Pharmacy Orientation	None	1	10 (Quiz)	-	-	15	25	50
MTH 102	Mathematics	None	1	10 (Quiz)	-	-	15	25	50
PHO 111	Anatomy and Histology	None	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
Total			18						

Level one: 2nd Semester

Module Code	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
ENG 102n	English Language for Study Skills	ENG 101 n	2(1+1)	15	25	-	20	40	100
PHT 121	Physical Pharmacy	None	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHC 112	Pharmaceutical Organic Chemistry (2)	Pharmaceutical Organic Chemistry (1)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHG 112	Pharmacognosy	Medicinal Plants	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHC 122	Pharmaceutical Analytical Chemistry (2)	Pharmaceutical Analytical Chemistry (1)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
BS 102	Psychology	None	1	10 (Quiz)	-	-	15	25	50
PHB 111	Fundamentals of Cell Biology	None	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
Total			17						

Level two: 3rd Semester

Module Code	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
ENG 201n	English for Scientific Writing	English 102 n	2(1+1)	15	25	-	20	40	100
PHC 223	Pharmaceutical Analytical Chemistry (3)	Pharmaceutical Analytical Chemistry (2)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHM 211	General Microbiology and Microbial Genetics	None	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHC 213	Pharmaceutical Organic Chemistry (3)	Pharmaceutical Organic Chemistry (2)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	15	25	50	150
PHT 231	Pharmaceutical Dosage Forms (1)	Physical Pharmacy	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHO 221	Physiology and Pathophysiology	Anatomy and Histology	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHB 221	Fundamentals of Molecular Genetics	Fundamentals of Cell Biology	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
Total			19						

Level two: 4th Semester

Module Code	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
PHG 221	Chemistry of Natural Products (1)	Pharmacognosy	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHT 232	Pharmaceutical Dosage Forms (2)	Pharmaceutical Dosage Forms (1)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHO 231	Pathology and Introduction to Pharmacology	Anatomy and Histology Physiology and Pathophysiology	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHM 221	Immunology and Vaccinology	General Microbiology and Microbial Genetics	2(2+0)	25 (10 Quiz, 15 Assignment)	-	-	25	50	100
PHB 231	Biochemistry (1)	Pharmaceutical Organic Chemistry (3) Physiology and Pathophysiology	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHT 241	Pharmaceutical Legislations and Regulatory Affairs	None	1	10 (Quiz)	-	-	15	25	50
RS 201	Professional Ethics and Safety	None	1	10 (Quiz)	-	-	15	25	50
Total			16						

Level three: 5th Semester

Module Code	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
PHG 322	Chemistry of Natural Products (2)	Chemistry of Natural Products (1)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHB 332	Biochemistry (2)	Biochemistry (1)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHC 321	Instrumental Analysis	Pharmaceutical Analytical Chemistry (3)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	15	25	50	150
PHM 331	Medical Microbiology (1) Bacteriology and Mycology	Immunology and Vaccinology	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHO 332	Pharmacology (1)	Pathology and Introduction to Pharmacology	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHO 341	Biostatistics	Mathematics	1	10 (Quiz)	-	-	15	25	50
PHT 333	Pharmaceutical Dosage Forms (3)	Pharmaceutical Dosage Forms (2)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	15	25	50	150
Total			19						

Level three: 6th Semester

Module Code	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
PHG 331	Phytotherapy and Aromatherapy	Chemistry of Natural Products (2)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHT 334	Pharmaceutical Dosage Forms (4)	Pharmaceutical Dosage Forms (3)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHM 332	Medical Microbiology (2) Virology and Parasitology	Immunology and Vaccinology	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHC 331	Medicinal Chemistry (1)	Pharmaceutical Organic Chemistry (3)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHO 333	Pharmacology (2)	Pharmacology (1)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHB 322	Cell and Pharmacogene Therapy	Fundamentals of Molecular Genetics	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
Total			17						

Level four: 7th Semester

Module Code	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
PHB 433	Clinical Biochemistry	Biochemistry (2)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	15	25	50	150
PHM 441	Pharmaceutical Microbiology	General Microbiology and Microbial Genetics	3(2+1)	20 (5 Quiz, 15 Assignment)	40	15	25	50	150
PHO 434	Pharmacology (3)	Pharmacology (2)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHC 432	Medicinal Chemistry (2)	Medicinal Chemistry (1)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHT 451	Biopharmaceutics and Pharmacokinetics	Pharmaceutical Dosage Forms (4)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHM 451	Bioinformatics	Fundamentals of Molecular Genetics	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
	Elective (1)	Module Prerequisite	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
Total			19						

Level four: 8th Semester

Module	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
PHO 441	First Aid and Toxicology	Pharmacology (3)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	15	25	50	150
PHL 411	Clinical Pharmacy	Biopharmaceutics and Pharmacokinetics/ Pharmacology (2)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHT 461	Pharmaceutical Technology (1)	Pharmaceutical Dosage Forms (4)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHM 452	Pharmaceutical Biotechnology	Bioinformatics	2(2+0)	25 (10 Quiz, 15 Assignment)	-	-	25	50	100
	Elective (2)	Module Prerequisite	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHL 421	Community Pharmacy Practice	Pharmacology (3)/ Pharmaceutical Dosage Forms (4)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	15	25	50	150
MS 403	Entrepreneurship	None	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
RS 403	Research Methodology	Professional Ethics and Safety	1	10	-	-	15	25	50
Total			19						

Level five: 9th Semester

Module Code	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
PHL 531	Therapeutics (1) and Drug information	Clinical Pharmacy	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHL 541	Marketing and Pharmacoeconomics	Community Pharmacy Practice	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHC 531	Drug Design	Medicinal Chemistry (2)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	15	25	50	150
	Elective (3)	Module Prerequisite	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHT 562	Pharmaceutical Technology (2)	Pharmaceutical Technology (1)	2(2+0)	25 (10 Quiz, 15 Assignment)	-	-	25	50	100
PHL 551	Clinical Pharmacokinetics	Biopharmaceutics and Pharmacokinetics	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHM 561	Public Health	Medical Microbiology (1) and (2)	2(2+0)	25 (10 Quiz, 15 Assignment)	-	-	25	50	100
Total			18						

Level five: 10th Semester

Module	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
PHT 571	Advanced Drug Delivery Systems	Pharmaceutical Dosage Forms (4)	2(1+1)	15 (5Quiz, 10 Assignment)	25	10	15	35	100
PHL 532	Therapeutics (2)	Therapeutics (1) and Drug Information	2(1+1)	15 (5Quiz, 10 Assignment)	25	-	20	40	100
PHO 535	Applied Pharmacology and Drug Interaction	Pharmacology (3)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHL 561	Pharmacovigilance and Pharmacoepidemiology	Pharmacology (3)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
PHC 521	Quality Control of Pharmaceuticals	Instrumental Analysis/ Pharmaceutical Microbiology/ Chemistry of Natural Products (2)	3(2+1)	20 (5 Quiz, 15 Assignment)	40	-	30	60	150
	Elective (4)	Module Prerequisite	2 (1+1)	15 (5Quiz, 10 Assignment)	25	-	20	40	100
PHT 563	Good Manufacturing Practice	Pharmaceutical Technology (2)	1	10 (Quiz)	-	-	15	25	50
PHL 522	Hospital Pharmacy	Pharmacology (3)/ Pharmaceutical Dosage	2(1+1)	15 (5Quiz, 10 Assignment)	25	-	20	40	100
Total			18						

Optional Modules

Module Code	Module Title	Prerequisite	Credit	Assessment					
				Periodicals	Practical/ tutorial	Oral exam	Midterm exam	Final exam	Total Mark
PHB 401	Clinical Nutrition	Clinical Biochemistry	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHB 402	Proteomics	Clinical Biochemistry	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHB 403	Bioanalysis	Biochemistry (2)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHB 501	Transcriptomics	Clinical Biochemistry	2 (1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHC 401	Environmental Analysis and Remediation	Pharmaceutical Analytical Chemistry (3)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHC 402	Food and Cosmetics Analysis	Instrumental Analysis	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHC 501	Forensic Chemistry	Instrumental Analysis/ First Aid and Toxicology / Chemistry of Natural Products (2)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100

PHC 403	Radiopharmaceutical Chemistry	Medicinal Chemistry (2)	2(1+1)	15 (5Quiz, 10 Assignment)	25	-	20	40	100
PHC 404	Advanced Organic Chemistry	Pharmaceutical Organic Chemistry (3)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHM 401	Diagnostic Microbiology	Pharmaceutical Microbiology	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHO 401	Drugs and Sports	Pharmacology(3)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHO 402	Drug Abuse	Pharmacology(3)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHO 403	Stem Cells and Regenerative Medicine	Cell and Pharmacogene Therapy	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHL 401	Pharmacogenomics	Fundamentals Of Molecular Genetics	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHG 401	Computational Phytochemistry	Chemistry of Natural Products (2)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHG 402	Marine Natural Products	Chemistry of Natural Products (2)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHT 401	Cosmetics	Pharmaceutical Dosage Forms (4)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100

PHT 402	Registration of Generic Products	Pharmaceutical Dosage Forms (4)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHT 403	Computer-Aided Process Design	Pharmaceutical Dosage Forms (4)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100
PHT 404	Veterinary Pharmacy	Pharmaceutical Dosage Forms (4)	2(1+1)	15 (5 Quiz, 10 Assignment)	25	-	20	40	100

Elective modules are offered to Junior and Senior students who have finished the corresponding prerequisite of each elective. The Faculty Assessment Board determines the elective modules offered each semester and the academic advisers offer help to students concerning choosing the elective. New modules might be added and others might be modified to cope with the vast rapid development in the different Pharmaceutical fields.