

SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be university U/S 3 of UGC Act 1956)

Accredited with Grade "A++" by NAAC | Category-I University by UGC | Approved by AICTE

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119, Tamil Nadu.



CURRICULUM

UG Programmes

BACHELOR OF PHARMACY (B. Pharm)

(2026)

As Per NEP 2020

SCHOOL OF PHARMACY

CURRICULUM**PROGRAMME: B.Pharm-NEP 2020****SEMESTER-WISE CREDITS CLASSIFICATION**

Category	Semester	Total Subjects	Total Credits
T (Theory Courses)	I-VIII	49	131
P (Practical Courses)	I-VIII	27	34
AEC (Ability Enhancement Courses)	III,VI,VII &VIII	4 Elective (Choose 1 each)	4
SEC (Skill Enhancement Courses)	II &VI	2 Elective (Choose 1 each)	2
VAC (Value Added Courses)	VI &VIII	2 Elective (Choose 1 each)	2
I (Internship)	IV &VI	2	8
RP (Research Project)	VII &VIII	2	12
Total Programme Credits			193 Credit

Sem	Theory	Practical	AEC	SEC	VAC	Internship	Research	Credits
Semester-I	6	5	—	—	—	—	—	21
Semester -II	6	5	—	1	—	—	—	26
Semester -III	8	3	1	—	—	—	—	25
Semester -IV	5	5	—	—	—	1	—	23
Semester -V	6	4	—	—	—	—	—	22
Semester -VI	6	2	1	1	1	1	—	26
Semester -VII	7	1	1	—	—	—	1	26
Semester -VIII	5	2	1	—	1	—	1	24
Total	49	27	4	2	2	2	2	193

CREDITS -WISE CLASSIFICATION

Semester	6-Credit Courses	4-Credit Courses	3-Credit Courses	2/1-Credit Courses	Number of Credits			Total courses (T+P+O)	Total Credits
					The	Pract	Other (AEC/VAC/SEC)		
Sem-I	0	SBPC104T (4 Credits)	SBPC102T, SBPC105T SBPC106T (9 Credits)	SBPC101T, SBPC103T, SBPC107P, SBPC108P, SBPC109P,,SBPC110P SBPC111P (8 Credits)	16	5	0	11 (6+5)	21
Sem-II	0	SBPC203T, SBPC204T SBPC205T (12 Credits)	SBPC202T, SBPC206T (6 Credits)	SBPC201T, SBPC207P, SBPC208P SBPC209P, SBPC210P, SBPC211P, SBPC212P S1/S2/S3* (8 Credits)	20	5	*SEC-1	12 (6+5+1)	26
Sem-III	0	0	SBPC304T, SBPC305T, SBPC306T, SBPC307T, SBPC308T (15 Credits)	SBPC301T, SBPC302T, SBPC303T, SBPC309P, SBPC310P, SBPC311P, SBPC312PA1/A2/A3 (10 Credits)	19	5	*AEC-1	12 (8+3+1)	25
Sem-IV	0	SBPC411I (4 Credits)	SBPC401T, SBPC402T, SBPC403T, SBPC405T (12 Credits)	SBPC404T, SBPC406P, SBPC407P, SBPC408P, SBPC409P, SBPC410P (7 Credits)	14	5	*Intern-4	11 (5+5+1)	23
Sem-V	0	0	SBPC501T, SBPC502T, SBPC505T, SBPC506T (12 Credits)	SBPC503T, SBPC504T, SBPC507P, SBPC508P, SBPC509P, SBPC510P (10 Credits)	16	6	0	10 (6+4)	22
Sem-VI		SBPC611I (4 Credits)	SBPC601T, SBPC602T, SBPC605T, SBPC606T (12 Credits)	SBPC603T, SBPC604T, SBPC607T A4/A5/A6/A7/A8/A9*, SBPC608P, SBPC609P, SBPC610P S4/S5*, SBPC611PV1/V2*, (10 Credits)	16	3	*AEC-1, *SEC-1 *VAC-1 *Inter-4 (07)	12 (6+2+4)	26
Sem-VII	SBPC710RP (6 Credits)	0	SBPC701T, SBPC704T, SBPC705T, SBPC706T (12 Credits)	SBPC702T, SBPC703T, SBPC707T, SBPC708T A10/A11/A12/A13/A14/A15/A16, SBP709P (8 Credits)	18	1	*AEC-1 & *RP-6 (07)	10 (7+1+2)	26
Sem-VIII	SBPC810RP (6 Credits)	0	SBPC803T, SBPC805T (6 Credits)	SBPC801T, SBPC802T, SBPC804T, SBPC806T A17/A18/A19/A20/A21/A22*, SBPC807P, SBPC808P, SBPC809P V3/V4/V5* (12 Credits)	12	3	*AEC-2, *VAC-1 *RP-6 (09)	10 (5+2+3)	24
Total	12 Credits	24 Credits	84 Credits	73 Credits	131	34	28	76	193 Credits

****AEC** (Ability Enhancement Courses), **SEC** (Skill Enhancement Courses) & **VAC** (Value Added Courses), **I** (Internship), **RP** (Research Project)

SEMESTER-I

Course Code	Name of the Course	Theory/ Practical	L (Hrs)	P (Hrs)	C	CAE MARKS			Time	ESE MARKS	Total Marks	Time	Page No
						CA	SE	TOTAL					
SBPC101T	Basics of Python Programming for Pharmaceutical Sciences	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	1
SBPC102T	General Pharmacy	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	4
SBPC103T	Healthcare Psychology and Communication Skills	Theory	1	0	1	10	10	20	1 Hr	30	50	1.5 Hrs	8
SBPC104T	Human Anatomy, Physiology and Pathophysiology I	Theory	4	0	4	20	20	40	1 Hr	60	100	3 Hrs	11
SBPC105T	Introduction to Pharmacognosy	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	14
SBPC106T	Pharmaceutical Inorganic and Analytical Chemistry	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	17
SBPC107P	General Pharmacy	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	20
SBPC108P	Healthcare Psychology and Communication Skills	Practical	0	2	1	10	10	20	3 Hrs	30	50	3 Hrs	23
SBPC109P	Human Anatomy, Physiology and Pathophysiology I	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	25
SBPC110P	Introduction to Pharmacognosy	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	27
SBPC111P	Pharmaceutical Inorganic and Analytical Chemistry	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	29
Total			16	14	21	135	135	270		405	675		

*****CA**: Continuous Assessment, **CAE**: Continuous Assessment Exam, **SE**: Sessional Exam, **ESE**: End Semester Exam, **C**: Credits, **L**: Lectures and **P**: Practical's.

SEMESTER-II

Course Code	Name of the Course	Theory/ Practical	L (Hrs)	P (Hrs)	C	CAE MARKS			Time	ESE MARKS	Total Marks	Time	Page No
						CA	SES	TOTAL					
SBPC201T	Applied Biostatistics and Data Analytics for Pharmaceutical Sciences (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	31
SBPC202T	Biochemistry (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	34
SBPC203T	Human Anatomy, Physiology and Pathophysiology II (Theory)	Theory	4	0	4	20	20	40	1 Hr	60	100	3 Hrs	37
SBPC204T	Pharmaceutical Organic Chemistry (Theory)	Theory	4	0	4	20	20	40	1 Hr	60	100	3 Hrs	40
SBPC205T	Pharmacognosy and Phytochemistry (Theory)	Theory	4	0	4	20	20	40	1 Hr	60	100	3 Hrs	43
SBPC206T	Physical Pharmaceutics (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	47
SBPC207P	Biochemistry (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	50
SBPC208P	Human Anatomy, Physiology and Pathophysiology II (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	52
SBPC209P	Pharmaceutical Organic Chemistry (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	54
SBPC210P	Pharmacognosy and Phytochemistry (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	56
SBPC211P	Physical Pharmaceutics (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	58
SBPC212P SEC* (Elective)	SBPC212PS1-Communication Skills (Elective)	Practical	0	2	1	10	10	20	3 Hrs	30	50	3 Hrs	61
	SBPC212PS2-Mental Well-Being, Stress & Conflict Management (Elective)												64
	SBPC212PS3-Fundamentals of Computer Operations (Elective)												66
Total			20	17	26	160	160	320		480	800		

*****CA**: Continuous Assessment, **CAE**: Continuous Assessment Exam, **SEC**: Skill Enhancement Courses, **SE**: Sessional Exam, **ESE**: End Semester Exam, **C**: Credits, **L**: Lectures and **P**: Practical's.

SEMESTER-III

Course Code	Name of the Course	Theory/ Practical	L (Hrs)	P (Hrs)	C	CAE MARKS			Time	ESE MARKS	Total Marks	Time	Page No
						CA	SES	TOTAL					
SBPC301T	Introduction to Machine Learning in Pharmaceutical Sciences (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	69
SBPC302T	Environmental Science (Theory)	Theory	1	0	1	10	10	20	1 Hr	30	50	1.5 Hrs	72
SBPC303T	Ethics and Universal Human Values (Theory)	Theory	1	0	1	10	10	20	1 Hr	30	50	1.5 Hrs	74
SBPC304T	General Pharmacology (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	76
SBPC305T	Heterocyclic Compounds and Stereochemistry (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	79
SBPC306T	Pharmaceutical Dosage Forms I (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	82
SBPC307T	Pharmaceutical Engineering (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	85
SBPC308T	Pharmaceutical Microbiology (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	87
SBPC309P	General Pharmacology (Practical)	Practical	0	4	2	10	10	20	3 Hrs	30	50	3 Hrs	90
SBPC310P	Heterocyclic Compounds and Stereochemistry (Practical)	Practical	0	4	2	10	10	20	3 Hrs	30	50	3 Hrs	93
SBPC311P	Pharmaceutical Dosage Forms I (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	95
SBPC312P AEC * (Elective)	SBPC312PA1: Nutraceuticals and Functional Foods (Practical)	Practical	0	2	1	10	10	20	3 Hrs	30	50	3 Hrs	97
	SBPC312PA2: Food Analysis (Practical)	Practical											99
	SBPC312PA3: Yoga and Life Sciences (Practical)	Practical											101
Total			19	13	25	145	145	290		435	725		

****CA:** Continuous Assessment, **CAE:** Continuous Assessment Exam, **AEC:** Ability Enhancement Courses, **SE:** Sessional Exam, **ESE:** End Semester Exam, **C:** Credits, **L:** Lectures and **P:** Practical's.

SEMESTER-IV

Course Code	Name of the Course	Theory/ Practical	L (Hrs)	P (Hrs)	C	CAE MARKS			Time	ESE MARKS	Total Marks	Time	Page Number
						CA	SES	TOTAL					
SBPC401T	Herbal Drug Technology (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	103
SBPC402T	Medicinal Chemistry (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	107
SBPC403T	Pharmaceutical Biotechnology (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	111
SBPC404T	Social Pharmacy and Public Health (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	114
SBPC405T	Systemic Pharmacology I (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	118
SBPC406P	Herbal Drug Technology (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	121
SBPC407P	Medicinal Chemistry (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	123
SBPC408P	Pharmaceutical Biotechnology (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	125
SBPC409P	Social Pharmacy and Public Health (Practical)	Practical	0	2	1	10	10	20	3 Hrs	30	50	3 Hrs	128
SBPC410P	Systemic Pharmacology I (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	130
SBPC411I	Internship (Mandatory)	Practical	8	0	4			0	3 Hrs		100	3 Hrs	133
Total			22	14	23	120	120	240		360	700		0

*****CA**: Continuous Assessment, **CAE**: Continuous Assessment Exam, **SE**: Sessional Exam, **ESE**: End Semester Exam, **C**: Credits, **L**: Lectures and **P**: Practical's.

SEMESTER-V

Course Code	Name of the Course	Theory/ Practical	L (Hrs)	P (Hrs)	C	CAE MARKS			Time	ESE MARK S	Total Marks	Time	Page No
						CA	SES	TOTAL					
SBPC501T	Biomedical Chemistry (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	134
SBPC502T	Industrial Pharmacognosy (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	138
SBPC503T	Innovation and Startup Ecosystem (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	141
SBPC504T	Pharmaceutical Dosage Form II (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	146
SBPC505T	Pharmaceutical Quality Assurance (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	149
SBPC506T	Systemic Pharmacology II (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	152
SBPC507P	Biomedical Chemistry (Practical)	Practical	0	4	2	10	10	20	3 Hrs	30	50	3 Hrs	155
SBPC508P	Industrial Pharmacognosy (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	157
SBPC509P	Pharmaceutical Dosage Form II (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	159
SBPC510P	Systemic Pharmacology II(Practical)	Practical	0	4	2	10	10	20	3 Hrs	30	50	3 Hrs	161
Total			16	14	22	120	120	240		360	600		

*****CA**: Continuous Assessment, **CAE**: Continuous Assessment Exam, **SE**: Sessional Exam, **ESE**: End Semester Exam, **C**: Credits, **L**: Lectures and **P**: Practical's.

SEMESTER-VI

Course Code	Name of the Course	Theory/ Practical	L (Hrs)	P (Hrs)	C	CAE MARKS			Time	ESE MARKS	Total Marks	Time	Page No
						CA	SES	TOTAL					
SBPC601T	Advanced Pharmacognosy (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	164
SBPC602T	Biopharmaceutics and Pharmacokinetics (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	167
SBPC603T	Intellectual Property Rights (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	170
SBPC604T	AI applications in Pharmaceutical Sciences (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	173
SBPC605T	Pharmaceutical Analysis (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	176
SBPC606T	Pharmaceutical Jurisprudence (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	179
SBPC607T AEC* (Elective)	SBPC607TA4 Green Chemistry	Theory	1	0	1	10	10	20	1 Hr	30	50	1.5 Hrs	182
	SBPC607TA5 Materiovigilance and Hemovigilance												185
	SBPC607TA6 Scientific Writing												188
	SBPC607TA7 Drug Store and Business Management												191
	SBPC607TA8 Career Building in Cultivation of Medicinal Plants												194
	SBPC607TA9 Active Pharmaceutical Ingredients and Excipients Sciences												197
SBPC608P	Biopharmaceutics and Pharmacokinetics (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	200
SBPC609P	Pharmaceutical Analysis (Practical)	Practical	0	4	2	10	10	20	3 Hrs	30	50	3 Hrs	202
SBPC610P SEC* (Elective)	SBPC610P S4-Computer-Aided Drug Design	SEC*	0	2	1	10	10	20	3 Hrs	30	50	3 Hrs	204
	SBPC610P S5-Analytical Method Development and Validation												207
	SBPC610P S6-Principles of Preclinical Studies												209
SBPC611P VAC* (Elective)	SBPC611P V1-Professional Skills	VAC*	0	2	1	10	10	20	3 Hrs	30	50	3 Hrs	211
	SBPC611PV2-Process Analytical Technology (PAT) and QbD in Formulation Science												213
SBPC612I	Internship (Mandatory)	Internship	8	0	4				3 Hrs		100	3 Hrs	215
Total			25	11	26	130	130	260		390	750		

***CA: Continuous Assessment, CAE: Continuous Assessment Exam, AEC: Ability Enhancement Courses, SEC: Skill Enhancement Courses, VAC: Value Added Courses, I: Internship, SE: Sessional Exam, ESE: End Semester Exam, C: Credits, L: Lectures and P: Practical's.

SEMESTER-VII

Course Code	Name of the Course	Theory/ Practical	L (Hrs)	P (Hrs)	C	CAE MARKS			Time	ESE MARKS	Total Marks	Time	Page No
						CA	SES	TOTAL					
SBPC701T	Biostatistics Research methodology (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	216
SBPC702T	Cosmetics and Cosmeceuticals (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	221
SBPC703T	AI in Clinical applications (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	223
SBPC704T	Modern Analytical Techniques (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	226
SBPC705T	Pharmacovigilance (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	229
SBPC706T	Pharmacy Practice (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	232
SBPC707T	Regulatory Affairs (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	236
SBPC708T AEC*	SBPC708TA10: Current Good Manufacturing Practices (cGMP)	AEC	1	0	1	10	10	20	1 Hr	30	50	1.5 Hrs	239
	SBPC708TA11: Pharmaceutical Automation												242
	SBPC708TA12: Modern Techniques in Cellular Biology												245
	SBPC708TA13: Medical Devices												248
	SBPC708TA14: Transformation of Food Waste into Medicinal Products												251
	SBPC708TA15: Biosimilar, Vaccines & Macromolecules												253
	SBPC708TA16: Precision Medicine												256
SBPC709P	Modern Analytical Techniques (Practical)	Practical	0	3	1	10	10	20	3 Hrs	30	50	3 Hrs	259
SBPC710RP	Research Project	Practical	0	0	6				3 Hrs		150	3 Hrs	261
Total			19	3	26	110	110	220		330	700		

*****CA:** Continuous Assessment, **CAE:** Continuous Assessment Exam, **AEC:** Ability Enhancement Courses, **SE:** Sessional Exam, **ESE:** End Semester Exam, **RP:** Research Project, **C:** Credits, **L:** Lectures and **P:** Practical's.

SEMESTER-VIII

Course Code	Name of the Course	Theory/ Practical	L (Hrs)	P (Hrs)	C	CAE MARKS			Time	ESE MARKS	Total Marks	Time	Page No
						CA	SES	TOTAL					
SBPC801T	Ethical Considerations and Translational Applications of AI in Pharmacy (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	262
SBPC802T	Clinical Pharmacotherapeutics (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	265
SBPC803T	Industrial Pharmacy and Facility Design (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	267
SBPC804T	Pharmaceutical Management (Theory)	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	270
SBPC805T	Sterile Dosage Forms and Novel Drug Delivery System (Theory)	Theory	3	0	3	15	15	30	1 Hr	45	75	2 Hrs	273
SBPC806T AEC*	SBPC806TA17 -Pharmaceutical Packaging	Theory	2	0	2	10	10	20	1 Hr	30	50	1.5 Hrs	276
	SBPC806TA18 -Supply Chain Management												279
	SBPC806TA19 -Industrial Safety and Waste Management												282
	SBPC806TA20 -Traditional Healing Practices of India												285
	SBPC806TA21 -Futuristic Pharma through AR/VR: Pharma 4.0												288
	SBPC806TA22 -Herbal Cosmetics for Industry Perspective												291
SBPC807P	Pharmaceutical Marketing Skills (Practical)	Practical	0	2	1	10	10	20	3 Hr	30	50	3 Hrs	294
SBPC808P	Sterile Dosage Forms and Novel Drug Delivery System (Practical)	Practical	0	4	2	10	10	20	3 Hr	30	50	3 Hrs	296
SBPC809P VAC*	SBPC809PV3 -Cleaning Validation	Practical	0	2	1	10	10	20	3 Hr	30	50	3 Hrs	298
	SBPC809PV4 -Basic Training in Aseptic Handling Techniques												300
	SBPC809PV5 -Impurity Profiling												302
SBPC810RP	Research Project	Practical	0	0	6				3 Hr		150	3 Hrs	304
Total			14	8	24	100	100	200		300	650		

*****CA:** Continuous Assessment, **CAE:** Continuous Assessment Exam, **AEC:** Ability Enhancement Courses, **SE:** Sessional Exam, **ESE:** End Semester Exam, **RP:** Research Project **C:** Credits, **L:** Lectures and **P:** Practical's.