KADI SARVA VISHWA VIDYALAYA K. B. INSTITUTE OF PHARMACEUTICAL EDUCATION AND RESEARCH MASTER OF PHARMACY SYLLABUS Effective from Session JUNE 2012 SCHEME OF TEACHING

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CREI	DITS
		Т	Р	Т	Р
	111 to 117 are common subjects.				
111	Advanced Spectroscopic Methods	3	-	3	-
112	Advanced Spectroscopic Methods Practical	-	3	-	3
113	Biostatistics And Computer Applications	2	-	2	
114	Biostatistics And Computer Applications Practical	-	3	-	3
115	Intellectual Property Rights	2	-	2	-
116	New Drug Applications	2	-	2	-
117	Scientific Communication Skills	2	-	1	-
S	pecialization Subject: PHARMACEUTICS & PHAR	MACEUTI	CAL TECI	HNOLOG	Y
211	Fundamentals of Pharmaceutics –I Theory	3	-	3	-
212	Pharmaceutics and Pharmaceutical Technology Practical-I	-	9	-	5
	Specialization Subject: PHARM	ACOLOGY	7		
311	Pharmacology I	3	-	3	-
312	Pharmacology I Practical	-	9	-	5
	Specialization Subject: PHARMACEUTICAL	QUALITY	ASSURAN	NCE	
411	Basic Concepts In Quality Assurance And Separation Science	3	-	3	-
412	Basic Concepts In Quality Assurance And Separation Science Practical	-	9	-	5
	Specialization Subject: PHARMACOGNOSY	& PHYTO	CHEMIST	RY	
511	Basic Pharmacognosy & Phytochemistry	3	-	3	-
512	Basic Pharmacognosy & Phytochemistry Practical	-	9	-	5
Spec	ialization subject: PHARMACEUTICAL MANAGEN	MENT & R	EGULAT(ORY AFFA	AIRS
611	Management Concepts-I	4	-	3	-
612	Business Communications	3	-	2	-
613	Indian Pharmaceutical Regulations And Guidelines	4	-	3	-
	Specialization Subject: CLINICAL	PHARMA	CY		
711	Clinical Pharmacy I	3	-	3	-
712	Clinical Pharmacy I Practical	-	9	-	5
	Total				
200	Pharmaceutics	14	15	13	11
300	Pharmacology	14	15	13	11
400	Quality Assurance	14	15	13	11
500	Pharmacognosy	14	15	13	11
600	Pharmaceutical Management And Regulatory Affairs	22	6	18	06
700	Clinical Pharmacy	14	15	13	11

SPECIALIZATION: PHARMACEUTICS AND PHARMACEUTICAL TECHNOLOGY SCHEME OF TEACHING

SUB CODE	NAME OF SUBJECT	CONTACT HOURS CREI PER WEEK		DITS	
		Theory Practical		Theory	Practical
221	Fundamentals of Pharmaceutics - II	3		4	
222	Pharmaceutical Product Development - I	3		4	
223	Pharmaceutical Technology - I	3		4	
224	Pharmaceutical Biotechnology	3		3	
225	Pharmaceutics and Pharmaceutical Technology Practical - II		18		6
226	Subject Seminar	6			3
	TOTAL	18	18	15	9

SEMESTER – II

SEMESTER-III

SUB	NAME OF SUBJECT	CONTACT Hrs/WK		CREDITS	
CODE		Theory	Practical	Theory	Practical
231	Drug Delivery Systems	4		4	
232	Pharmaceutical Product Development - II	3		3	
233	Pharmaceutics And Regulatory Affairs	2		2	
234	Pharmaceutical Technology - II	3		3	
235	Pharmaceutics and Pharmaceutical Technology Practical – III		18		6
236	Synopsis (Introduction To Dissertation) & Viva Voce			3	
237	Subject Seminar	6			3
	TOTAL	18	18	15	9

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK	CREDITS
241	Dissertation (Project Work)	36	12
242	Viva- Voce		12

SPECIALIZATION: PHARMACOLOGY SCHEME OF TEACHING

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CRED	DITS
		Т	Р	Т	Р
321	General Pharmacology	3		3	
322	Pharmacokinetics	3		4	
323	Systemic Pharmacology - I	3		4	
324	Systemic Pharmacology - II	3		4	
325	Pharmacology Practical - II		18		6
326	Subject Seminar	6			3
	TOTAL	18	18	15	9

SEMESTER - II

SEMESTER-III

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CREDITS	
		Т	Р	Т	Р
331	Pharmacological Screening - I	3		3	
332	Pharmacological Screening - II	3		3	
333	Clinical Pharmacology, Pathophysiology	3		3	
334	Regulatory Affairs in Clinical Research (Common Subject With 734 M.Pharm Clinical Pharmacy)	3		3	
335	Pharmacology Practical - III		18		6
336	Synopsis (Introduction To Dissertation) & Viva Voce			3	
337	Subject Seminar	6			3
	TOTAL	18	18	15	9

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK	CREDITS
341	Dissertation (Project Work)	36	12
342	Viva- Voce		12

SPECIALIZATION: PHARMACEUTICAL QUALITY ASSURANCE SCHEME OF TEACHING

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CREDITS	
		Т	Р	Т	Р
421	Pharmaceutical Analysis - I	2		3	
422	Natural Product and Biotechnology	3		4	
423	Chromatography	3		4	
424	Validation	4		4	
425	Quality Assurance Practical - II		18		6
426	Subject Seminar	6			3
	Total	18	18	15	9

SEMESTER - II

SEMESTER - III

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CREE	DITS
		Т	Р	Т	Р
431	Biological Evaluation and Clinical Research	3		3	
432	Pharmaceutical Product Development	3		3	
433	Food and Cosmetics, Special Analytical Techniques	3		3	
434	Quality Management	3		3	
435	Quality Assurance Practical -III		18		6
436	Synopsis (Introduction To Dissertation) & Viva Voce			3	
437	Subject Seminar	6			3
	TOTAL	18	18	15	9

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK	CREDITS
441	Dissertation (Project Work)	36	12
442	Viva- Voce		12

SPECIALIZATION: PHARMACOGNOSY & PHYTOCHEMISTRY SCHEME OF TEACHING

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CRED	DITS
		Т	Р	Т	Р
521	Advanced Pharmacognosy-I	3		4	
522	Plant Biotechnology	3		3	
523	Chemistry of Medicinal Natural Products-I	3		4	
524	Chemistry of Medicinal Natural Products-II	3		4	
525	Pharmacognosy & Phytochemistry Practical –II		18		6
526	Seminar / Term Assignment	6			3
	TOTAL	18	18	15	9

SEMESTER-II

SEMESTER-III

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CREDITS	
		Т	Р	Т	Р
531	Advanced Pharmacognosy - II	3		3	
532	Advanced Phytopharmacology	3		3	
533	Advanced Analytical Techniques	3		3	
534	Standardization of Traditional Herbal Drugs	3		3	
535	Pharmacognosy & Phytochemistry Practical – III		18		6
536	Synopsis (Introduction to Dissertation) & Viva voce			3	
537	Subject Seminar	6			3
	TOTAL	18	18	15	9

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK	CREDITS
541	Dissertation (Project Work)	36	12
542	Viva- Voce		12

SPECIALIZATION: PHARMACEUTICAL MANAGEMENT AND REGULATORY AFFAIRS SCHEME OF TEACHING

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CREDITS	
		Т	Р	Т	Р
621	Management Concepts – II	4		4	
622	Good Manufacturing Practices	3		3	
623	Pharmaceutical Validation	3		3	
624	Good Laboratory Practices	3		3	
625	Regulatory Affairs Practical - I		18		6
626	Drug Discovery and Development Process -Outline	2		2	
627	Assignments/Seminars/Presentations	3			3
	TOTAL	18	18	15	9

SEMESTER-II

SEMESTER-III

SUB CODE	NAME OF SUBJECT	NAME OF SUBJECT CONTACT CREDIT HOURS PER WEEK		DITS	
		Т	Р	Т	Р
631	Management Concepts – III	4		4	
632	Good Clinical Practices	3		3	
633	Preclinical Safety and Efficacy Studies	2		2	
634	Regulatory Aspects for Cosmetics, Nutraceuticals, Biotech Products and Medical Devices	3		3	
635	Regulatory Submissions - National and International	3		3	
636	Regulatory Affairs Practical - II		18		6
637	Assignments/Seminars/Presentations	3			3
	TOTAL	18	18	15	9

SUB CODI	NAME OF SUBJECT	CONTACT HOURS PER WEEK	CREDITS
641	Dissertation (Project Work)	36	12
642	Viva- Voce		12

SPECIALIZATION: CLINICAL PHARMACY SCHEME OF TEACHING

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CRED	DITS
		Т	Р	Т	Р
721	Pharmacotherapeutics - I	3		4	
722	Pharmacotherapeutics - II	3		4	
723	Clinical Pharmacy - II	3		4	
724	Bio-pharmaceutics and Pharmacokinetics - I	3		3	
725	Clinical Pharmacy Practical - II		18		6
726	Subject Seminar	6			3
	TOTAL	18	18	15	9

SEMESTER-II

SEMESTER-III

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK		CREDITS	
		Т	Р	Т	Р
731	Bio-pharmaceutics and Pharmacokinetics – II	3		3	
732	Clinical Pharmacy - III	3		3	
733	Hospital and Community Pharmacy	3		3	
734	Regulatory Affairs in Clinical Research	3		3	
735	Clinical Pharmacy Practical - III		18		6
736	Synopsis / ITD				3
737	Subject Seminar	6			3
	TOTAL	18	18	12	12

SUB CODE	NAME OF SUBJECT	CONTACT HOURS PER WEEK	CREDITS
741	Dissertation (Project Work)	36	12
742	Viva- Voce		12

MASTER OF PHARMACY SYLLABUS Effective from Session JUNE 2012 SCHEME OF EXAMINATION SEMESTER-I

		SEMESTE		MA	RKS		
SUB	NAME OF SUBJECT	DURATION	THEORY PRACTICAL				
CODE		OF EXAM	University	Institute	University	Institute	
		(Hrs)	level	level	level	level	
			evaluation	evaluation	evaluation	evaluation	
111	Advanced Spectroscopic Methods	3	80	20			
112	Advanced Spectroscopic Methods Practical	3			80	20	
113	Biostatistics and Computer Applications	3	80	20			
114	Biostatistics and Computer Applications Practical	3			80	20	
115	Intellectual Property Rights	3	80	20			
115	New Drug Applications	3	80	20			
117	Scientific Communication Skills	3	80	20			
117		TION SUBJECT					
	Fundamentals of Pharmaceutics-I						
211	Theory	3	80	20			
212	Pharmaceutics and Pharmaceutical Technology Practical - I	6			80	20	
	SPECIALIZA	TION SUBJECT	: PHARMAC	OLOGY			
311	Pharmacology - I	3	80	20			
312	Pharmacology - I Practical	6			80	20	
	SPECIALIZATION SUBJE	CT: PHARMAC	EUTICAL QU	JALITY ASSU	RANCE		
411	Basic Concepts in Quality Assurance	2	90	20			
411	and Separation Science	3	80	20			
412	Basic Concepts in Quality Assurance and Separation Science Practical	6			80	20	
	SPECIALIZATION SUBJE	CT: PHARMAC	COGNOSY &]	PHYTOCHEN	AISTRY		
511	Basic Pharmacognosy & Phytochemistry	3	80	20			
512	Basic Pharmacognosy & Phytochemistry Practical	6			80	20	
S	PECIALIZATION SUBJECT: PHAR	MACEUTICAL	MANAGEME	I NT & RECII	ATORVAFI	TAIRS	
611	Management Concepts - I	3	80	20			
612	Business Communications	3	80	20			
613	Indian Pharmaceutical Regulations and Guidelines	3	80	20			
	SPECIALIZATI	ON SUBJECT · (LINICAL PE	IARMACY			
711	Clinical Pharmacy - I	3	80	20			
711	Clinical Pharmacy - I Practical	6			80	20	
/12	Cinical Flatmacy - I Flatucal	TOTAL			00	20	
200	Pharmaceutics	30	480	120	240	60	
300	Pharmaceutics	30	480	120	240	60	
400	Pharmaceutical Quality Assurance	30	480	120	240	60	
500	Pharmacognosy	30	480	120	240	60	
600	Pharmaceutical Management and Regulatory Affairs	30	640	160	160	40	
700	Clinical Pharmacy	30	480	120	240	60	

SPECIALIZATION: PHARMACEUTICS AND PHARMACEUTICAL TECHNOLOGY SCHEME OF EXAMINATION

	SEMESTER – II								
SUB	NAME OF SUBJECT	DURATION		MA	RKS				
CODE		OF EXAM	THE	ORY	PRAC'	TICAL			
		(HRS)	University level evaluation	Institute level evaluation	University level evaluation	Institute level evaluation			
221	Fundamentals of Pharmaceutics - II	3	80	20					
222	Pharmaceutical Product Development -I	3	80	20					
223	Pharmaceutical Technology -I	3	80	20					
224	Pharmaceutical Biotechnology	3	80	20					
225	Pharmaceutics and Pharmaceutical Technology Practical -II	12			80	20			
226	Subject Seminar					100			
	TOTAL		320	80	80	120			

SEMESTER – II

SEMESTER – III

SUB	NAME OF SUBJECT	DURATION	MARKS			
CODE		OF EXAM	THE	ORY	PRACTICAL	
		(HRS)	University level evaluation	Institute level evaluation	University level evaluation	Institute level evaluation
231	Drug Delivery Systems	3	80	20		
232	Pharmaceutical Product Development - II	3	80	20		
233	Pharmaceutics and Regulatory Affairs	3	80	20		
234	Pharmaceutical Technology - II	3	80	20		
235	Pharmaceutics and Pharmaceutical Technology Practical – III	12			80	20
236	Synopsis (Introduction To Dissertation) & Viva Voce		80	20		
237	Subject Seminar					100
	TOTAL		400	100	80	120

SUB CODE	NAME OF SUBJECT	UNIVERSITY LEVEL EVALUATION
241	Dissertation	100
242	Viva- Voce	100
	TOTAL	200

SPECIALIZATION: PHARMACOLOGY SCHEME OF EXAMINATION

	SEMESTER-II								
SUB	NAME OF SUBJECT	DURATION		MARKS					
CODE		OF EXAM	THE	ORY	PRAC	ΓICAL			
		(HRS)	University	Institute	University	Institute			
			level	level	level	level			
			evaluation	evaluation	evaluation	evaluation			
321	General Pharmacology	3	80	20					
322	Pharmacokinetics	3	80	20					
323	Systemic Pharmacology - I	3	80	20					
324	Systemic Pharmacology - II	3	80	20					
325	Pharmacology Practical - II	12			80	20			
326	Subject Seminar					100			
	TOTAL		320	80	80	120			

SEMESTER-II

SEMESTER - III

SUB	NAME OF SUBJECT	DURATION	MARKS			
CODE		OF EXAM	THE	ORY	PRACTICAL	
		(HRS)	University level evaluation	Institute level evaluation	University level evaluation	Institute level evaluation
331	Pharmacological Screening - I	3	80	20		
332	Pharmacological Screening - II	3	80	20		
333	Clinical Pharmacology, Pathophysiology	3	80	20		
334	Regulatory Affairs in Clinical Research (Common Subject With 734 M.Pharm Clinical Pharmacy)	3	80	20		
335	Pharmacology Practical - III	12			80	20
336	Synopsis (Introduction To Dissertation) & Viva Voce		80	20		
337	Subject Seminar					100
	TOTAL		400	100	80	120

SUB CODE	NAME OF SUBJECT	UNIVERSITY LEVEL EVALUATION
341	Dissertation	100
342	Viva- Voce	100

SPECIALIZATION: PHARMACEUTICAL QUALITY ASSURANCE SCHEME OF EXAMINATION

SUB	NAME OF SUBJECT	DURATION		MA	RKS		
CODE		OF EXAM	THE	ORY	PRACTICAL		
		(HRS)	University	Institute	University	Institute	
			level	level	level	level	
			evaluation	evaluation	evaluation	evaluation	
421	Pharmaceutical Analysis - I	3	80	20			
422	Natural Product and	3	80	20			
722	Biotechnology	5	00	20			
423	Chromatography	3	80	20			
424	Validation	3	80	20			
12.5		10				•	
425	Quality Assurance Practical - II	12			80	20	
426	Subject Seminar					100	
	TOTAL		320	80	80	120	

SEMESTER-II

SEMESTER - III

SUB	NAME OF SUBJECT	DURATION		MA	RKS	
CODE		OF EXAM	THE	ORY	PRACTICAL	
		(HRS)	University level evaluation	Institute level evaluation	University level evaluation	Institute level evaluation
431	Biological Evaluation and Clinical Research	3	80	20		
432	Pharmaceutical Product Development	3	80	20		
433	Food and Cosmetics, Special Analytical Techniques	3	80	20		
434	Quality Management	3	80	20		
435	Quality Assurance Practical - III	12			80	20
436	Synopsis (Introduction To Dissertation)		80	20		
437	Subject Seminar					100
	TOTAL		400	100	80	120

SUB CODE	NAME OF SUBJECT	UNIVERSITY LEVEL EVALUATION					
441	Dissertation	100					
442	Viva- Voce	100					
	TOTAL	200					

SPECIALIZATION: PHARMACOGNOSY & PHYTOCHEMISTRY SCHEME OF EXAMINATION

SUB	NAME OF SUBJECT	DURATION		MA	RKS	
CODE		OF EXAM	THE	ORY	PRACTICAL	
		(HRS)	University	Institute	University	Institute
			level evaluation	level evaluation	level evaluation	level evaluation
521	Advanced Pharmacognosy - I	3	80	20		
522	Plant Biotechnology	3	80	20		
523	Chemistry of Medicinal Natural Products - I	3	80	20		
524	Chemistry of Medicinal Natural Products - II	3	80	20		
525	Pharmacognosy & Phytochemistry Practical – II	12			80	20
526	Seminar / Term assignment					100
	TOTAL		320	80	80	120

SEMESTER - II

SEMESTER - III

SUB	NAME OF SUBJECT	DURATION		MA	RKS	
CODE		OF EXAM	THE	ORY	PRACTICAL	
		(HRS)	University	Institute	University	Institute
			level	level	level	level
			evaluation	evaluation	evaluation	evaluation
531	Advanced Pharmacognosy - II	3	80	20		
532	Advanced Phytopharmacology	3	80	20		
533	Advanced Analytical Techniques	3	80	20		
534	Standardization of Traditional	3	80	20		
554	Herbal Drugs	5	00	20		
535	Pharmacognosy &	12			80	20
555	Phytochemistry Practical – III	12			00	20
536	Synopsis (Introduction to		80	20		
550	Dissertation) & Viva voce			20		
537	Subject Seminar					100
	TOTAL		400	100	80	120

SUB CODE	NAME OF SUBJECT	UNIVERSITY LEVEL EVALUATION
541	Dissertation	100
542	Viva- Voce	100
	TOTAL	200

SPECIALIZATION: PHARMACEUTICAL MANAGEMENT AND REGULATORY AFFAIRS SCHEME OF EXAMINATION

	SEWIESTER - II								
SUB	NAME OF SUBJECT	DURATION	MARKS						
CODE		OF EXAM	THE	ORY	PRACTICAL				
		(HRS)	University	Institute	University	Institute			
			level	level	level	level			
			evaluation	evaluation	evaluation	evaluation			
621	Management Concepts –II	3	80	20					
622	Good Manufacturing Practices	3	80	20					
623	Pharmaceutical Validation	3	80	20					
624	Good Laboratory Practices	3	80	20					
625	Regulatory Affairs Practical-I	6			80	20			
626	Drug Development Process -Outline	3	80	20					
627	Assignments/Seminars/Presentations					100			
	Total		400	100	80	120			

SEMESTER - II

SEMESTER - III

SUB	NAME OF SUBJECT	DURATION		MA	RKS	
CODE		OF EXAM	THE	ORY	PRAC'	TICAL
		(HRS)	University	Institute	University	Institute
			level	level	level	level
			evaluation	evaluation	evaluation	evaluation
631	Management Concepts – III	3	80	20		
632	Good Clinical Practices	3	80	20		
633	Preclinical Safety and Efficacy	3	80	20		
035	Studies	5	80	20		
	Regulatory Aspects for Cosmetics,					
634	Nutraceuticals, Biotech Products	3	80	20		
	and Medical Devices					
635	Regulatory Submissions-National	3	80	20		
055	And International	5	00	20		
636	Regulatory Affairs Practical - II	6			80	20
637	Assignments/Seminars/Presentations					100
	TOTAL		400	100	80	120

SUB CODE	NAME OF SUBJECT	UNIVERSITY LEVEL EVALUATION
641	Dissertation	100
642	Viva- Voce	100
	TOTAL	200

SPECIALIZATION: CLINICAL PHARMACY SCHEME OF EXAMINATION

SUB	NAME OF SUBJECT	DURATION		MARKS			
CODE		OF EXAM	THE	ORY	PRACTICAL		
		(HRS)	University	Institute	University	Institute	
			level	level	level	level	
			evaluation	evaluation	evaluation	evaluation	
721	Pharmacotherapeutics - I	3	80	20			
722	Pharmacotherapeutics - II	3	80	20			
723	Clinical Pharmacy - II	3	80	20			
724	Bio-pharmaceutics and Pharmacokinetics - I	3	80	20			
725	Clinical Pharmacy Practical - II	12			80	20	
726	Subject Seminar					100	
	TOTAL		320	80	80	120	

SEMESTER - II

SEMESTER - III

SUB	NAME OF SUBJECT	DURATION	MARKS			
CODE		OF EXAM	THEORY		PRACTICAL	
		(HRS)	University	Institute	University	Institute
			level	level	level	level
			evaluation	evaluation	evaluation	evaluation
731	Bio-pharmaceutics and	3	80	20		
	Pharmacokinetics – II					
732	Clinical Pharmacy - III	3	80	20		
733	Hospital and Community Pharmacy	3	80	20		
734	Regulatory Affairs in Clinical Research	3	80	20		
735	Clinical Pharmacy Practical - III	12			80	20
736	Synopsis / ITD		80	20		
737	Subject Seminar					100
	TOTAL		400	100	80	120

SUB CODE	NAME OF SUBJECT	UNIVERSITY LEVEL EVALUATION
741	Dissertation	100
742	Viva- Voce	100
	TOTAL	200