

BHARATI VIDYAPEETH
Deemed to be University

AYURVED
**[Pre Ph. D.-Six month course work
structure]**

Faculty of Ayurved

BHARATI VIDYAPEETH Deemed to be University
Pune-411030

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Paper III Literature survey and the review of the work done earlier on the topic of research presentation.		27	
Examination scheme		27	

	research designs	<p>data, historical data, manuscriptology.</p> <ul style="list-style-type: none"> • Drug research and Experimental research – <ul style="list-style-type: none"> a] Analytical chemistry: techniques and instrumentation. b] Laboratory based in vitro and in vivo. c] Toxicological and pharmacological - animal models. • Descriptive and epidemiological research: theory and application. Meta-analysis techniques. • Clinical research: theory designs and models. Fundamental research • Combinations of techniques according to research priority area, broad classification and aim. 	5 2 2 2
5.	Ayurveda viewpoint	<ul style="list-style-type: none"> • Concept of development of objectivity to Ayurvedic variables and parameters using modern tools. • Logical interpretations of data. • Priority areas of research of Ayurvedic science. Fundamental, reverse pharmacological, clinical, descriptive in each of the faculties. 	2
6.	Research Writing	<ul style="list-style-type: none"> • Preparation of project proposal: area to budget including pert charts and flow charts. • Development of protocol. • Preparation of report of project a] styles, b] formats, c] graphs, charts, bar diagrams etc. • Evaluation of written project reports based on evidence and various parameters. • Economics involved in research. • Concept of health audits – regulatory aspect of health science. 	2

1.2 Quantitative methods -**15 hours- 30 marks.**

SR. NO.	TOPIC	hours
1.	APPLICATION OF MEDICAL STAISTICS IN AYURVED. a. Data collection. b. Compilation & tabulation. c. Methods of data collection. d. Measures of central tendency. e. Measures of variability.	5
2.	a. Probability concept. b. Normal distribution & properties. c. Regression analysis & interpretation.	5
3.	a. Design of experiment (ANOVA, ANCOVA etc.) b. Non-parametric tests.	5

1.3 Computer applications-**10 hours- 20 marks.**

Sr. No.	TOPIC	hours
1.	Information technology	2
2.	Internet and web	
3.	The system unit	2
4.	Software- A) System softwares B) Application softwares- a. basic application softwares b. specialized application softwares	4
5.	Communication and networks	2

Paper II

A Specialized Subject

2.1 Ayurved Samhita and Siddhant

Marks- 100

Credit- 4 Credits - Hours – 60 hours [each credit- 15 hours]

Sr. No.	Topics	Hours
1.	<ul style="list-style-type: none">• Charak Samhita Sutrasthan & CharakSamhita Chikitsasthan with ChakrapaniCommentary .• Importance of CharakSamhita in present era for maintenance of health & treatment of diseases.• AnuktaVyadhiChikitsa Siddhant from Charak Samhita.	15 hours
2	<ul style="list-style-type: none">• Special features of “Chikitsa” from SushrutSamhita.• NidanaSthan from SushrutSamhita with Dalhan and Gayadas commentaries.• Special features of SutraSthan ofSushrutSamhita with Dalhan and Chakrapani commentaries.	15 hours
3	<ul style="list-style-type: none">• Dietary principles from Ashtang Hridaya & Ashtang Sangrah.• Life Style disorders.• Rasayan & Vajikarana Chikitsa from Bruhatrayee.• Peer reviewed journals in Ayurved.	15 hours
4	<ul style="list-style-type: none">• Fundamental principles related to Mind.• Role of Mind in health maintenance in current era• Update researches on Dosha Dhatu Mala .• Manuscriptology	15 hours

2.2 Kriya Sharir

Marks- 100 Credit- 4 Credits - Hours – 60 hours[each credit- 15 hours]

Sr. No	Topic	Hrs	Total hrs
1.	<u>Study of Basic principles related to Kriya Sharir</u>		15
	Panchabhautic Siddhant Lokpurush SiddhantSamanya Vishesh SiddhantTrigun Tridosha Siddhant	4	
	Applied aspect of Prakruti. Study of Deha and Manas Prakruti their classification and features of different Prakruti	3	
	Applied aspect of Sarata	3	
	Ayurvedic concept of Manas Atma and Indriya- (Description of Manas properties its location, objects functions and qualities Mechanism of Dyanotpatti)	2	
	Physiology of sleep and dreams, physiology of cognitive processes	2	
	Description of concept of Atma and its features	1	
2	<u>Applied aspect of Dosha Dhatu Mala</u>		15
	Physiological study of Human body as a composite of Dosha, Dhatu and Mala.	3	
	Properties, qualities, functions, locations and types of Dosha Dhatu and Mala, their Panchabhautika	3	
	composition Causes and features of Vriddhi and Kshaya of DoshaDhatu and Malas.	3	
	Description of Ojas.	1	
	Define Immunity. Types of immunity	1	
	Mechanisms of formation of urine, feces and sweat;	2	

	their functions according to Ayurveda and modern science. Physiology, Histology and functional anatomy of Excretory system.		
	Modern laboratory and Ayurvedic and clinical methods to assess the functioning of Dosha, Dhatu, Mala and other factors	2	
3	<u>Ayurvedic and modern concept of Digestion</u>		15
	Study of Ahar and its allied aspect	2	
	Study of Agni .Functions of Jatharagni, Bhutagni and Dhatvagni in detail.	3	
	Detailed study of Ahar Awasthapak ,Vipak,	2	
	Phenomenon of Koshtha.	1	
	Physiology Histology and functional anatomy of Digestive System.	2	
	Study of Liver Spleen Pancreas.	2	
	Basic biochemistry of digestion, absorption, and metabolism of fats, proteins, carbohydrates, vitamins, minerals and water.	3	
4	<u>Ayurvedic and Modern Physiology of Body Systems</u>		15
	Physiology Histology and functional anatomy of Cardiovascular system	2	
	Physiology Histology and functional anatomy of Respiratory system	2	
	Physiology Histology and functional anatomy of Reproductive system.	2	
	Ayurvedic and modern views on physiology of nervous system including physiology of special senses	2	
	Physiological study of Endocrinology.	2	
	Instruments related to Kriya Sharir	2	
	Modern methods for quantitative assessment of various body components; Development of possible objective parameters.Techniques and principles of associated instruments.	2	
	Description of recent advances in the understanding of different biophysical and Biochemical mechanisms involved in physiology and their correlation with Ayurvedic Fundamentals	1	

2.3 Rachana Sharir

Marks- 100 Credit- 4 Credits - Hours – 60 hours[each credit- 15 hours]

Sr. No/ Sections	Details of Topics	Hours of Teaching Learning/Credit
1.	<p>Study of following adhyaya with its applied aspects:</p> <p>Sushrut Samhita Sutrasthan</p> <ol style="list-style-type: none">1. Adhyaya 1. :- Vedotpatti2. Adhyaya 2.:- Shishyopnayaniya3. Adhyaya 3.:- Adhyayansampradaniya4. Adhyaya 4.:- Prabhashaniya5. Adhyaya 5.:- Agroupaharniya6. Adhyaya 14.:- Shonitvarniya <p>Sushrut Samhita Sharirsthan</p> <ol style="list-style-type: none">7. Adhyaya 1.:- Sarvabhutachintasharir	<p style="text-align: center;">15</p> <p style="text-align: center;">.....</p> <p style="text-align: center;">1 Credit</p>
2.	<p>Study of following adhyaya with its applied aspects:</p> <p>Sushrut Samhita Sutrasthan</p> <ol style="list-style-type: none">1. Adhyaya 15.:- Doshdhatumalakshyavruddhividnyaniya2. Adhyaya 20.:- Hitahita3. Adhyaya 21.:- Vranaprashna <p>Sushrut Samhita Sharirsthan</p>	

	<p>4. Adhyaya 2. :- Sukrashonitsuddhisharir</p> <p>5. Adhyaya 3.:- Garbhaavakrantisharir</p> <p>6. Adhyaya 4.:- Garbhavyakaransharir</p> <p>7. Adhyaya 5.:- Sharirsamkyavyakaransharir</p>	<p>15</p> <p>.....</p> <p>1 Credit</p>
3	<p>Study of following adhyaya with its applied aspects:</p> <p>Sushrut Samhita Nidsanstan</p> <p>1. Adhyaya 1.:- Vatavyadhinidan</p> <p>2. Adhyaya 15.:- Bhagnanidan</p> <p>Sushrut Samhita Sharirsthan</p> <p>3. Adhyaya 7.:- Siravarnavibhaktisharir</p> <p>4. Adhyaya 8.:- Siravyadhvidhishsarir</p> <p>5. Adhyaya 9.:- Dhamanivyakaransharir (Basic principles of Sira Dhamani and Srotassharir)</p>	<p>15</p> <p>.....</p> <p>1 Credit</p>
4	<p>Study of following adhyaya with its applied aspects:</p> <p>Sushrut Samhita Sharirsthan</p> <p>1. Adhyaya 6.:- Pratekmarmanirdeshsarir</p> <p>2. Adhyaya 10.:- Garbhinivyakaransharir</p>	<p>15</p> <p>.....</p> <p>1 Credit</p>

2.4 Agad Tantra, Vyavahar Ayurved evam Vidhi Vaidyak

Marks- 100 Credit- 4 Credits - Hours – 60 hours[each credit- 15 hours]

Sr. No.	Topics	Hours
1.	<ul style="list-style-type: none"> • Definition & properties of <i>Visha</i> ,<i>Visha samprapti</i>, <i>Vishaprabhava</i>, <i>Vishavega</i>, <i>vegantara</i> and <i>Vishakarmukata</i>, <i>Shankavisha</i> & <i>Vishasankat</i> (toxicodynamic and toxicokinetic study). • Garavisha and Dushi visha, their varieties, signs, symptoms and management with contemporary relevance. • Detailed study of Allergies including allergic manifestations in the eyes, nose, lungs and skin • Fundamental Principles for treatment of poisoning • <i>Chaturvinshati Upakrama</i> (24 management procedures). • Extra -corporeal techniques (dialysis etc) for removal of poisons. <p>Emergency medical management of poisoning including preparation, administration and complications of anti-venoms /anti-sera</p> <ul style="list-style-type: none"> • Descriptive study of <i>Sthavara visha</i>, definition, classifications, classical signs and symptoms of poisoning of <i>Sthavara visha</i> including <i>Vanaspatik</i> (phyto poison), <i>Khanija</i> (mineral) • General and specific treatment of different types of <i>Sthavara visha</i>. • Study of process for <i>Sodhana</i>, <i>Marana Sanskara</i> of poisonous drugs before therapeutic use. 	15
2.	<ul style="list-style-type: none"> • Study of <i>Jangama visha</i> and their sources, descriptive study of ancient and contemporary knowledge of <i>Sarpavisha</i>, <i>Vrischika</i>, <i>Alarka</i> etc.their pathologic manifestations including their role as a causative factor in communicable diseases eg. vector borne diseases • General and specific treatment of different types of <i>Jangam visha</i>. • Detailed study of the contemporary knowledge about <i>Vishajanya Janpadodhvansaniya roga</i> (community health problems due to poisons & Environmental pollution, Water pollution, Soil pollution, Air pollution, Industrial pollutions, Agrochemicals toxicity etc). Their features and management according to ancient and recent concepts. • Concept of <i>Virudhaahar</i>, <i>Aahara visha</i> and <i>Satmy-Asatmyata</i> in contemporary and Ayurvedic views. • Management of food poisoning • Detailed study of <i>Madya visha</i> and substances acting on the nervous system; substance abuse. Their diagnosis, management 	15

	<ul style="list-style-type: none"> • Role of for Forensic Science Laboratory in suspected poisoning and medico-legal cases. <p>Duty of physician in cases of poisoning, suspected poisoning and their Post mortem findings</p>	
3.	<ul style="list-style-type: none"> • Personal identity and its medico-legal aspects • Death and its medico-legal aspects (Forensic Thanatology) • Violent asphyxia deaths and its medico-legal importance. • Injuries due to various weapons, firearm, explosions, chemical and nuclear warfare, heat and cold, lightening and electricity and its Medico-legal aspects. • Virginitiy, Impotence, Sterility and their medico-legal aspects. • Regulations of Artificial Insemination and surrogate motherhood • Sexual offences and perversions. • Medico-legal aspects of, Pregnancy, Delivery, Abortion, Infanticide and Legitimacy with related acts • Medico legal aspects of mental illness 	15
4.	<ul style="list-style-type: none"> • Courts and Legal procedures • Study of medico-legal acts like Indian Evidence Act, Pre conceptional Pre Natal Diagnostic Test Act, Nursing Home Act, Human Organ Transplantation Act, Drugs and Cosmetic Act 1940, Narcotic drugs and Psychotropic substances Act 1985, Pharmacy Act 1948, Drugs and Magical Remedies (Objectionable Advertisements) Act 1954, Medicinal and Toilet Preparations Act 1955 and Anatomy Act etc. • Duties and privileges of physician as per ancient and contemporary science. • Professional secrecy and privileged communication. Professional negligence and malpractice. • Doctor - patient relationship. Rights and privileges of patients, Euthanasia. Consumer Protection Act related to medical practice • Indemnity Insurance scheme. • Structure of Central Council of Indian Medicine, its jurisdiction and functions. Code and Conducts as per the CCIM, Rules and Regulations there under. • Respective State Council of Indian Medicine, its structure, power, voluntary duties 	15

2.5 Rasashashtra and Bhaishjya Kalpana Vigyan

Marks- 100

Credit- 4 Credits - Hours – 60 hours [each credit- 15 hours].

Sr. No.	Topic	Hours
1.	<p>Dravyavargikaran And Parichaya [Classification and Pharmacognosy]</p> <ul style="list-style-type: none"> • Contemporary status of the branch Rasashastra and Bhaishajya kalpana. • Various systems of classification of drugs of natural origin i.e. medicinal plants, mineral ores, metals and animal products, specific terminology of the drugs [paryay and paribhasha] • Brief outline of occurrence, distribution, useful parts, identification tests, collection, preservation and storage methods of raw drugs. • Introduction to pharmacognosy of all types of Dravya – ahara and aushadha - traditional and modern • Detail study of ahardravyavarga, aharakalpana and concept of pathyapathya kalpana. Developments regarding functional foods, nutraceuticals, and therapeutic foods 	10
2.	<p>Kalpanirman siddhant [Principles of Pharmaceutics]: Metrology: Systems of weights and measures. Ayurvedic methods of measurement, Manparibhasha. Metric System and Calculations including conversion from one to another system and percentage calculations</p> <p>Introduction of pharmaceutical applications/procedures of drugs from all categories</p> <p>Basic Principles of Formulations of herbal drugs and mineral drugs. Fundamental dosage forms: [Panchavidhakashay, advanced and modified kalpana] and mineral drugs [Shuddha Dravya, Bhasma, Satva, Druti, and Parad Kalpana</p> <p>Basic principles of pharmaceutical chemistry</p> <p>Packaging of Pharmaceuticals – Desirable features of a</p>	20

	<p>container.</p> <p>Types of containers. Study of glass & plastic as materials for containers & rubber as material for closure. Merits & demerits of storage materials. Information regarding traditional packaging & storage materials, their merits & demerits.</p>	
3.	<p>Aushdhi Karmukata Vichar [Pharmacology]</p> <ul style="list-style-type: none"> • Introduction to Ayurvedic Pharmacology (rasa virya vipaka guna karma) & its scope. Pharmacological classification and action of drugs according to srotasa. • Routes of Drug administration their advantages & disadvantages of Bheshajprayogmarga, Bheshajaprayoga kal. [Posology] • Ayurvedic drugs and formulations used for various new conditions, syndromes, and infectious diseases like thyroids, CAD, swine flue, COVID 19 	20
4.	<p>Itihas and Vangamaya [Literature: ancient and modern]</p> <ul style="list-style-type: none"> • History of [Bheshaja] drug in man. Definition, chronological review of Rasabhaishajyakalpana and its scope in indigenous system of medicine. • Introduction to pharmacopoeias with special reference to Indian pharmacopoeias. • Drug research guidelines and phases. • Most researched rasa drugs and the rationale for the same • Research regarding concepts of Rasa shastra and Bhaishajya Kalpana. • Various Research models to evaluate safety and efficacy of Rasa dravya. • Evidences against safety and efficacy of Herbo-mineral / metallic formulations and their interpretation • Publication and research writing particular to RSBK • Concerns expressed by non-Ayurvedic scientists on making of and use of mercurial metallic / herbo-mineral formulations in therapeutics 	10

2.6 Dravya Guna Vigyan

Marks- 100

Credit- 4 Credits - Hours – 60 hours[each credit- 15 hours]

Sr. No.	Topic	Hours
1.	Pharmacognosy- Importance and different methods of classification according to Ayurved and modern and Namrupavigyan	4
2.	Brief knowledge regarding controversy, substitutes and adulterants of herbal drugs, Neutraceuticals, Cosmoceuticals, food addictives etc.	4
3.	Gunakarma Vigyan- Applied aspect of fundamentals of Dravya gunavigyan- Rasa, Guna, Veerya, Vipaka- Knowledge & interpretation of Bruhatrayi, Laghutrayi along with their Commentators	4
4.	Karma- Vigyan-Comprehensive study of karma as defined in Brihatrayee & Laghutrayee	4
5.	Prashasta Bhesajya Parikshana as per Charakacharya Standardization of crude drugs- [as per Ayurved pharmacopeia & WHO guideline]- Pharmacognostical study of different parts of the plants with reference to Macroscopic and microscopic study and Qualitative and Quantitative analysis like foreign matter, extractive (water and alcohol), ash value, acid insoluble ash and TLC separation.; Methods of drugs Standardization and Quality control; Biomarkers	5
6.	Knowledge of clinical pharmacology and clinical drug research as per GCP guidelines	3
7.	Sandighdravya & Anuktadravya- Knowledge of methodology and guna and karma of anuktadravyas	3
8.	Toxic drugs-Purification of Poisonous plants- Studies on changes occurring in purification of poisonous plants drug	2
9.	Study of Aharadravya	5
10.	Principle of drug administration and drug delivery regimen, and clinical pharmacological evaluation [therapeutic administration] of drugs	5
11.	Principles of clinical pharmacology and Introduction to reverse pharmacology	3

12.	Experimental pharmacology- Introduction to experimental pharmacology with special reference to various drug activities	3
13.	Brief knowledge regarding Pharmaco-vigilances-Knowledge of Pharmaco-vigilance in Ayurveda & modern medicine, Adverse drug reactions & drug interaction of medicinal plants, Drug incompatibility	4
14.	Dashemanigana and Agryasangraha	4
15.	TKDL (Traditional Knowledge of Digital Library) Various acts- Knowledge of TKDL, Introduction to relevant portions of following Acts – Good agricultural practices [GAP], Good field collection practices [G.F.C.P.] and Good storage practices [G.S.P.] Drugs and Cosmetic Act, Drug & Magic Remedies Act, FSSA (Food Safety and Standard Acts), AFA(Agriculture, Fisheries and Food Authority), Wildlife & Biodiversity Acts & Intellectual Property Right (IPR) and Regulations pertaining to Import and Export of Ayurvedic Drugs.	5
16.	Bio- diversity- Knowledge of biodiversity, endangered medicinal species, threatened species	2

2.7 Rog nidan and Vikriti vigyan

Marks- 100 Credit- 4 Credits - Hours – 60 hours[each credit- 15 hours]

Sr. No.	Topic	Hours
1.	Concept of Vyadhi and its principal of classification. Concept of Anukta Vyadhi Nidan	06
2.	Knowledge of Doshagati, Vyadhimarga, Vyadhiavastha and its application	06
3.	Concept of Agni, Ama and its application	06
4.	Concept of Srotas, its role in production of disease and its application	06
5.	Concept of Vyadhi Hetu and its classification	06
6.	Concept of Oja, Ojadusthi. Concept of Vyadhikshamatwa, Janapadodhwansa in Ayurved and its application in modern times	06
7.	Rogapariksha (Nidan Panchak) and its application	06
8.	Different methods of Rogipariksha and its application	06
9.	Krimivigyan in Ayurved	06
10.	Concept of Geriatrics in Ayurved and geriatric disorders	06

2.8 Swasthvritta

Marks- 100

Credit- 4 Credits - Hours – 60 hours[each credit- 15 hours]

Sr. No.	Topics	Hours
1.	Concept of holistic health <ul style="list-style-type: none"> • According to Ayurveda. • Spectrum of health, Iceberg phenomenon of diseases, dimensions of health. 	02
2.	Applied aspect of Dinacharya and Ritucharya <ul style="list-style-type: none"> • Probable Physiologic effect of Dinacharyaprocedures. • Ritu pattern in various countries of the world and Changing environment and application of ritucharya concept. 	04
3.	Effect of ritus on health and preventive measures. <ol style="list-style-type: none"> 1. Ahara. 1. Concepts of Diet Ayurveda perceptive and its applied aspect. 2. Staple diet of various States of India. Staple diet of various countries in correlation with their climate and its study from ayurvedAaharperceptive. 	04
4.	Concept of Rasayana, vajikarana and its role in Swasthvritta. <ul style="list-style-type: none"> • Achara Rasayana, Nityarasayana. • Rasayana procedures for Swastha. • Vajeekarana for Swastha. 	02
5.	Concept of Vegas, types and the physiology behind each vega and vegadharana <p style="text-align: center;">.</p>	02
6.	Concept of Trayopasthambha, and its role in Swasthvritta.	01
7.	Occupational Health. Ergonomics. Role of Ayurveda in it	01
8.	Vyadhikshamatva – <ul style="list-style-type: none"> • Modern and Ayurvedic concepts. • Immunization programmes. Possible contribution of Ayurveda. 	06
9.	Concept of community health. <ul style="list-style-type: none"> • Ecology and community health. 	10

	<ul style="list-style-type: none"> • Environment and community health. • Disposal of Wastes- Refuse, Sewage, bio medical waste management. 	
10.	<p>Concept of Epidemiology.</p> <ul style="list-style-type: none"> • Critical evaluation of Janapadodhwamsa. • Epidemiology of different Communicable diseases in detail. • Control of Epidemics. 	10
11.	<ul style="list-style-type: none"> • Demography and Family Planning. • Family Welfare Programme and the role of Ayurveda in it. 	08
12.	<p>National Health Programmes in Contribution of Ayurveda in National Health Programmes.</p> <ul style="list-style-type: none"> • Health administration under Ministry of H & FWD 15, AYUSH, NRHM, NUHM administration, functions and programmes. • Statistics related with Infectious diseases at International, National and State levels. • Vital Statistics. 	02
13.	<p>Yoga and Naturopathy.</p> <ul style="list-style-type: none"> • History and evolution of Yoga. • Different Schools of Yoga. • Physiological effect of Yoga on Body and mind – Ancient and modern concepts. • Therapeutic effect of yogic practice in the following. diseases - Diabetes, Hypertension, Cardiovascular disorders, Obesity, Asthma, Piles, Irritable Bowel Syndrome, Eczema, Psoriasis, Stress Disorders, Eye disorders, Head Ache, Juvenile Delinquency, Mental retardation, Depression, Neurosis, Sexual Dysfunction, Uterine Disorders, Cancer. • Basic Principles of Indian School of Nature Cure 	08

2.9 Kayachikitsa

Marks- 100

Credit- 4 Credits - Hours – 60 hours[each credit- 15 hours]

Sr. No.	Topics	Hours
1.	Basic Principles in clinical research of KAYACHIKITSA. Ayurvedic research methodology according to CharakVimanSthana,	15
2	Rasayan – Role and advances of rasayan in present scenario Vajikaran. a) Types b) Drugs used c) Uses d) Clinical significance	15
3	ChikitsaSiddhanta in charaksanhita and sushrutsanhita Shadividhopkram& their importance. a) Langhan b) Bruhan c) Rukshan d) Snehan e) Swedan f) Stambhan	15
4	Routs of Ayurvedic drug administration. a) Internal – Oral, Nasya, Basti, Vaman, Virechan. b) External – Abhyanga, Lepa, RaktaMokshan Ayurveda and national health programs.	15

2.10 Panchakarma

Marks- 100

Credit- 4 Credits - Hours – 60 hours[each credit- 15 hours]

Sr. No.	Topic	Hours
1.	Recent advances in Panchakarma and its instruments with Scope of researches in Panchakarma.	5
2.	Importance of Poorvakarma in Shodhana Chikitsa. And various safety precautions related NABH	5
3.	Vividha Rogeshu Vamanasya upayogita with classical and recent advances.	8
4.	Vividha Rogeshu Virechanasya upayogita with classical and recent advances.	8
5.	Vividha Rogeshu Basti upayogita with classical and recent advances.	4
6.	Vividha Rogeshu Nasya upayogita with classical and recent advances.	6
7.	Vividha Rogeshu Raktamokshanasya upayogita with classical and recent advances.	6
8.	Agnikarma , Ksharkarma and Viddhakarma	4
9.	Various allied Panchakarma Therapies.	4
10.	Role of Pashchatakarma.	2
11.	Various aseptic precautions and care taken during Panchakarma procedures in present Era.	2
12.	Basic principle of Physiotherapy.	2
13.	Various instruments of Physiotherapy with Uses and Applications.	4

2.11 Striro roga and Prasuti tantra

Marks – 100

Credit – 4 credits-60 hours (each credit 15 hours)

No	Topic	Hours
1	Grbha Garbhini Vigyan Recent advances in garbha-garbhini Recent Researches related to above subject	15 hours
2	Prasuti tantra Recent advances in prasutitantra Recent Researches related to above subject	15 hours
3	Streerog Recent advances in streerog Recent Researches related to above subject	15 hours
4	Prasutitantrs evan Streerog shashtrakarma Recent advances in surgery Recent Researches related to above subject	15 hours

2.12 Kaumarbhritya tantra

Marks – 100

Credit – 4 credits-60 hours (each credit 15 hours)

Sr. No.	Topics	Hours
1.	<p>Development of Kaumarbhrityatantra including ancient and modern literature. Strength of Ayurveda specific to child health care.</p> <p>Ayurvedic consideration of physiology and pathology of Dosha, Dhatu, Mala, Oja, Agni, Prakriti (sharirika-manasika), Kaya and Dhatuposhana in children.</p> <p>Basic Concepts of growth and development, and its assessment.</p> <p>Childhood Samskara and its scientific applications</p> <p>Principles of Child Psychology (Ayurvedic & modern concepts)</p> <p>Concept of BalaRasayana and its application in physical and mental health of children.</p> <p>Concept of Vyadhi-KshamatvaavamVardhanopaya. Concept of immunity and immune enhancing measures.</p> <p>Concept of Dhupana and Raksha karma and their clinical application in pediatric practice</p>	15 Hours
2.	<p>Fundamentals of Ayurvedic treatment for childhood disorders.</p> <p>Applied pharmacological considerations: Ayurvedic and modern concepts of drug doses, administration, distribution, metabolism, excretion, and other important factors of consideration.</p> <p>Basic concepts of single drugs commonly used in pediatric practice with special reference to their karma</p>	15 Hours

	Kuposhanjanyaand ChayapachayaJanyaVyadhi	
3.	<p>Specific considerations in research methods related to Pediatrics.Update knowledge of clinical pediatrics including recent researches in Kaumarbhritya.</p> <p>Regulatory laws related to child health management.</p> <p>Pediatric disabilities and Rehabilitation</p> <p>Fundamentals of Hospital management with special emphases on Pediatric Ward.</p> <p>Stanyadosha (Vitiation of Breast milk), StanyaShodhana (Purification of breast milk), StanyaJanana and Vardhanopakrama (Methods to enhance breast milk formation)</p> <p>Dhatri (Wet nurse) DhatriGuna and Dosha (Characteristics of Wet nurse), Concept of Breast Milk Banking.</p> <p>Specific Feeding methodology as per Ayurveda and recent advances for NavjatShishu</p>	15 Hours
4.	<p>Significant contributions of Kashyapasamhita, ArogyarakshaKalpadrum and other texts /treatises of Ayurveda such as HaritaSamhitain the field of Kaumarbhritya including relevant parts from Brihatrai</p> <p>Panchakarma: Principles of Panchakarma [Swedan–Hasta–Pataswedaetc], and their application in pediatric practice in detail.</p> <p>Balagraha: Scientific study of GrahaRogs</p> <p>YajjahPurushiya and Atulyagotriyaadhyaya of Charaka Samhita and applications related to it</p> <p>Measures for obtaining good progeny.</p>	15 Hours

2.13 Shalya tantra

Marks – 100

Credit – 4 credits-60 hours (each credit 15 hours)

SR.NO.	TOPIC	HOURS
1.	Sushruta Samhita	01
2.	Sushruta Samhita commentaries	01
3.	Tridosha vichara with special emphasis on Rakta as a Chaturtha Dosha	02
4.	Chaturvidha Upakrama	03
5.	Trividha Karma	04
6.	Ashtavidha Shastrakarma	04
7.	Basic principles of imaging techniques	03
8.	Basic principles of anesthesia	04
9.	Principles of management of Bhagna (Fractures)	03
10.	Principles of management of acute abdomen	02
11.	Principles of plastic and reconstructive surgery	02
12.	Vranitopkrama & Vranitagara (Modern concept)	01
13.	Marma vichara	02
14.	Pathya Kalpana in Shalya	01
15.	Specialities and contribution of Ayurveda in Shalyakarma	02
16.	Recent advances in surgery	05
17.	Special management of immune compromised patients (surgical perspective)	02
18.	Special management of COVID 19 patients (surgical perspective)	01

2.14 Shalakyta tantra

Marks- 100

Credit- 4 Credits - Hours – 60 hours[each credit- 15 hours]

NERTA

Sr. No.	Topics	Hours
1.	Applied anatomy and physiology of eye	04
2.	Ocular pharmacology and roots of drug administration in ocular diseases, Kriyakalpas	05
3	Blindness- national program	04
4	Eye donation and Keratoplasty	03
5	Yantara – shastra. Diagnostic tools in Shalakyatanyra (eye)	05
6	Panchakarma in Shalakyatantra	05
7	Anaesthesia in shalakyatantra (eye)	04

KARNA NASA MUKHAROGA

Sr. No.	Topics	Hours
1.	Applied anatomy and physiology of E.N.T.	06
2	Pharmacology in ENT and roots of drug administration in ENT diseases, Kriyakalpas	04
3	Deafness and tinnitus	03
4	Hearing Aids	03
5	Yantara – shastra. Diagnostic tools in Shalakyatanyra (ENT)	05
6	Panchakarma in Shalakyatantra (ENT)	04
7	Anaesthesia in shalakyatantra (ENT)	05

Paper III

Literature survey and the review of the work done earlier on the topic of research presentation

100 marks

Reviewing of Published research work in area of Ph.D. topic will be a continuous process.

Evaluation and Assessment

1. The Examination for each paper will be of 100 marks with three hour duration.
2. The 3rd paper 'Reviewing of published Research' will be assessed based on the seminar to be given during the semester.
 - For paper third scholar has to give two presentations based on literature survey which will carry 50 marks each.
 - First presentation will be conducted by Research centre and the second presentation will be conducted in the presence of an external examiner and other the only presentation before Examiners.
3. Candidate should have secured 50 marks in each paper for passing.
4. No any practical examination for paper one and paper two, only theory examination will be conducted.
5. The result of the student shall be announced as pass or fail only.
6. If the student fails in one paper in Pre – Ph.D course Examination then he / she can allow to keep the term.