

Ordinance Governing Regulations & Syllabus of Diploma in Ayurveda Pharmacy Syllabus/Curriculum 2022-23



Accredited '**A+**' Grade by NAAC (3rd Cycle)
Placed in '**A**' Category by Grade by MoE (GoI)

KLE Academy of Higher Education & Research (Deemed-to-be-University)

[Declared as Deemed-to-be-University u/s 3 of the UGC Act, 1956 vide Government of India Notification
No. F.9 -19/2000-U.3 (A)]

J. N. Medical College Campus, Nehru Nagar, Belagavi-590 010, Karnataka, India.
Phone : +91-0831-2444444 Fax : 0831-2493777
web : <http://www.kledeemeduniversity.edu.in>
E-mail : info@kledeemeduniversity.edu.in

Edition Year : 2022-23

© Registrar

Director, Academic Affairs

Email: diracademic@kledeemeduniversity.edu.in

KLE Academy of Higher Education & Research

JNMC Campus, Nehru Nagar, Belagavi-590 010.

Phone : 0831-2444444

e-mail:info@kledeemeduniversity.edu.in

Price Rs: 300/-only

Printed at:

Omega Offset

4574, Shetty Galli, Belagavi.

Ph: 0831-2424124 E-mail: customerservice@omegaoffset.com



VISION

To be an outstanding KAHER of excellence ever in pursuit of newer horizons to build self-reliant global citizens through assured quality educational programmes.

MISSION

- To promote sustainable development of Higher Education consistent with statutory and regulatory requirements.
- To plan and continuously provide necessary infrastructure, learning resources required for Quality education and innovations.
- To stimulate to extend the frontiers of knowledge, through Faculty Development and Continuing Education Programmes.
- To make research a significant activity involving Staff, Students and Society.
- To promote Industry/Organization, Interaction/Collaborations with Regional / National / International bodies.
- To establish healthy systems for communication among all stakeholders for vision oriented growth.
- To fulfill the National Obligation through Rural Health Mission.

OBJECTIVES

The objectives are to realize the following at KAHER and its Constituent Institutions :

- To implement effectively programmes through creativity and innovation in teaching, learning and evaluation.
- To make existing programmes more career oriented through effective system of review and redesign of curriculum.
- To impart spirit of inquiry and scientific temperament among students through research oriented activities.
- To enhance reading and learning capabilities among faculty and students and inculcate sense of Life Long Learning.
- To promulgate process for effective continuous, objective oriented student performance evaluation.
- To ordinate periodic performance evaluation of the faculty.
- To incorporate themes to build values, civic responsibilities and sense of National Integrity.
- To ensure that the academic, career and personal counseling are in-built into the system of curriculum delivery.
- To strengthen, develop and implement staff students welfare programmes.
- To adopt and implement principles of participation, transparency and accountability in governance of academic and administrative activities.
- To constantly display sensitivity and respond to changing educational, social and community demands.
- To promote Public - Private Partnership.

INSIGNIA



The Emblem of the KAHER is a Philosophical statement in Symbolic.

The Emblem...

A close look at the emblem unveils a pillar, a symbol of the 'KAHER of Excellence' built on strong Values & Principles.

The Palm & the Seven Stars....

The Palm is the palm of the teacher - the hand that acts, promises and guides the students to reach for the Seven Stars...

The Seven Stars signify the 'Saptarishi Dnyanamandal', the Great Bear - a constellation made of seven stars in the sky, each signifying a particular Knowledge Domain. Our culture says: The true objective of human birth is to Master these Knowledge Domains.

The Seven Stars also represent the Saptarishis, the founders of KLE Society whose selfless service and intense desire for 'Dnyana Dasoha' laid the foundation for creating the knowledge kingdom called KLE Society.

Hence another significance of the raised Palm is our tribute to these great Souls for making this KAHER a possibility.

Empowering Professionals...

'Empowering Professionals', the inscription at the base of the Emblem conveys that our Organization with its strength, maturity & wisdom will forever strive to empower the student community to become globally competent professionals. It has been a guiding force for many student generations in the past, and will continue to inspire many forthcoming generations.



KLE Academy of Higher Education & Research (Deemed-to-be-University)

[Declared as Deemed-to-be-University u/s 3 of the UGC Act, 1956 vide Government of India Notification No. F.9-19/2000-U.3 (A)]

Accredited 'A+' Grade by NAAC (3rd Cycle)

Placed in Category 'A' by MoE (Govt)

JNMC Campus, Nehru Nagar, Belagavi-590 010, Karnataka State, India

Phone : 0831-2444444 / 2493779 Fax : 0831-2493777

Web: <http://www.kledeemeduniversity.edu.in>

E-mail: info@kledeemeduniversity.edu.in

Ref. No. KAHER/AC/22-23/D-14122209

10th November 2022

NOTIFICATION

Sub : **Ordinance governing curriculum for the
Diploma in Ayurveda Pharmacy**

Ref : Minutes of the meeting of the Academic Council of the KAHER
held on 18th October, 2022.

In exercise of the powers conferred under Rule A-04 (i) of the Memorandum of Association of the KAHER, the Academic Council of the KAHER in its meeting held on **18th October, 2022** has approved the Ordinance governing the syllabi / curriculum for **Diploma in Ayurveda Pharmacy**.

The Ordinance shall be effective for the students admitted to **Diploma in Ayurveda Pharmacy**. Under the **Faculty of AYUSH** in the Constituent college of the KAHER viz. KLE Shri B.M. Kankanwadi Ayurveda Mahavidyalaya, Belagavi from the academic session **2023-24** onwards.

By Order

REGISTRAR

To

The Dean,
Faculty of AYUSH,
KAHER,
BELAGAVI.

CC to :

1. The PA to Hon. Chancellor, KAHER, Belagavi.
2. The Special Officer to Hon. Vice-Chancellor, KAHER, Belagavi.
3. The Principal, KLE Shri B.M. Kankanwadi Ayurveda Mahavidyalaya, Belagavi.
4. The Controller of Examinations, KAHER, Belagavi.
5. The Director, Academic Affairs, KAHER, Belagavi.
6. The Secretary, University Grants Commission, New Delhi,

Contents

Section	Topics	Page Nos.
1.	Section- I Preamble	
2.	Section- II Goal of the Course	
3.	Section- III Aims and Objectives of this Course	
4.	Section- IV Regulations Governing the course	
5.	1. Eligibility	
6.	2. Intake of the Student	
7.	3. Medium of instructions	
8.	4. Duration and Course of study	
9.	5. Attendance and Progress	
10.	6. Course/ Curriculum	
11.	7. Schedule of course	
12.	8. Subjects taught, Number of lectures/practical's and demonstrations for various subjects	
13.	Scheme of ExaminationsSubjects taught, number of theory papers and marksUniversity Question paper pattern University Practical Examination and marks divisionCriteria for Passing CourseDeclaration of Class	
14.	10. Syllabus	
15.	11. Bibliography	

Section: I

Preamble

Ayurveda medicine field is growing in prominence from past few years. Ayurveda as an emerging field lays out a plethora of opportunity for young aspirants who wish to pursue their career in the field of Ayurveda. Diploma in Ayurvedic Pharmacy lays across a platform for candidates to learn in depth about the different medicines and techniques used to cure ailments. The program is an integrated study of Ayurveda as a field combining it with the pharmacy.

Diploma in Ayurvedic Pharmacy course enables candidates to know about the chemical properties of ayurvedic medicines, the proportion, composition and the amount in which it should be taken by patients. They are instilled with the fundamental principles of Ayurveda and its uses in treating different ailments. It builds a strong base for those who wish to pursue a higher qualification in the field such as Bachelors and Masters.

Diploma in Ayurved Pharmacy [D.Pharm. Ayu] course provides pharmacy qualification for practicing pharmacy profession. Ayurved Pharmacists are the key person to dispense the medication to the patient. D. Pharm course graduates are eligible to open an online Ayurved pharmacy which is a demanding business in India in the field of Ayurved pharmacy.

The course aims to provides skills to enter patient's information, identify prescriptions, and process paperwork for orders, understand and apply drug and medical terminology, as well as basic pharmacology. The curriculum of the diploma course is designed to teach students to understand drug dosage calculations, regularly used pharmacy computer systems, compounding, pharmacy practices and procedures.

Karnataka state around 500 Govt. Ayurveda dispensaries, 400 ayurved drug manufacturing units, 70 Ayurveda college, 200 ayurveda wellness centers, 500 plus private ayurveda hospitals are available where there is lack of qualified ayurved pharmacist. This course fulfill these requirement of ayurveda pharmacist

KLE Ayurved college is working in the area of Ayurved since 1933 to Provide Ayurveda education, healthcare services and medicines to public. Institution has well established department & staffs required conducting for this course, Institution is also has Drug Manufacturing Unit since 1938, presently producing 300 classical & 26 proprietary medicines under GMP certification and exclusive outlet of products. KLE ayurved hospital has well established Aushadhalaya with around 60 plus medicines of different ayurveda companies are available.

Section -II

Goal of the course– To create expertise in the area of Dispensing /Hospital Pharmacy of Ayurveda medicine in ayurveda healthcare services.

Section –III

Aim & objectives of course:

Ayurveda Pharmacy diploma graduates are required to learn and acquire adequate knowledge, necessary skills to practice the profession of pharmacy including thorough and exhaustive knowledge of ayurveda medicines dispensing, patient counseling and professional information exchange with physicians and other health professionals. They are required to acquire an in-depth knowledge of compounding, dispensing, storage of various ayurvedic pharmaceutical dosage forms They should understand the concept of Community Pharmacy and be able to participate in rural and urban health care projects of State and Central government. The ayurveda pharmacist should act as bridge between ayurveda Physicians and Patients and strive for better healthcare.

The objectives are covered under three headings namely:

- (a) Knowledge and understanding
- (b) Skills and
- (c) Attitude
- (a) **Knowledge & Understanding:** The diploma graduate should acquire the following during their two-year D.Pharm course.
 - 1. Adequate knowledge and scientific information regarding ayurveda medicines
 - 2. Adequate knowledge of practical aspects of compounding, dispensing & storage of ayurveda medicines.
 - 3. Adequate knowledge of Rules & regulations pertaining to Ayurveda medicines.
 - 4. Adequate knowledge of patient counseling leading to physical and social well-being of patients.

5. Adequate knowledge of practical aspects of product detailing and marketing of Pharmaceutical products
- (B) **Skills** A graduate should be able to demonstrate the following skills necessary for practice of a pharmacy.
1. Able to formulate, store, dispense, analyze the prescriptions and/or manufacture the medicinal agents at commercial level.
 2. Able to learn and apply legal and ethical aspects involving drugs.
- (c) **Attitudes** The diploma graduate should develop the following attitudes during their two-year D.Pharm ayurveda course.
1. Willing to apply the current knowledge of Ayurveda Pharmacy in the best interest of patients and the community.
 2. Maintain a high standard of professional ethics in discharging professional obligations.
 3. Continuously upgrade professional information and be conversant with latest Advances in ayurveda Pharmacy and ayurveda healthcare services.
 4. Willing to participate in various programmes of related field to upgrade knowledge and professional skills.
 5. To help and to participate in the implementation of NATIONAL AYUSH MISSION.

Section-IV

Regulation

Eligibility:

Candidate shall have passed 10+2 of science examination conducted by the respective state/central government authorities recognized.

Intake of the Student:

Thirty students per year

Medium of instructions:

Medium of Instruction shall be English

Duration of the Course Study:

The Course of study shall be for a period of 02 year.

Attendance and Progress:

A minimum of 75% of the attendance in theory and practical separately is required to be eligible for examination, subject to the condition that his/her progress and conduct are counted to be satisfactory by the principal.

Course Content / Curriculum

Theory Syllabus points will be covered by departments of Rasashastra, Dravyaguna, Swasthavritta, Roga Nidan, Sharir and fundamentals of ayurveda etc in accordance to Conventional understanding. Expert lectures regarding subject wise will be delivered by the respective experts time to time.

Practical related contents conducted at established laboratories of ayurveda college, Ayurveda pharmacy Aushadhalaya etc.

Schedule: Subjects taught, Number of lectures/ practical's and demonstrations for various subjects

1st Year Syllabus

SN	Subject	Code	Teaching hours per week			Marks	
			Total	Theory	Practicals	Theory	Practicals
1	Rasashastra And Bhaishajya Kalpana – Paper I (Ayurvedic Pharmaceutics)	DAPRSBK-I	155	80 Hrs 4	75 Hrs 2	100	100
2	Dravyaguna – Paper I (Ayurvedic Pharmacology)	DAPDG-I	155	80 Hrs 4	75 Hrs 2	100	50
3	Sharira (Anatomy & Physiology)	DAPS-I	145	80 Hrs 4	75 Hrs 2	100	100
4	Fundamentals of Ayurveda And Swasthavritta	DAPFA-I	70	70 Hrs 4	—	100	---

Final Year Syllabus

S N	Subject	Code	Teaching hours per week			Marks	
			Total	Theory	Practicals	Theory	Practical
1	Rasashastra And Bhaishajya Kalpana – Paper II (Ayurvedic Pharmaceutics)	DAPRSB K-II	145	80 Hrs 3	75 Hrs 2	100	100
2	Dravyaguna – Paper II (Ayurvedic Pharmacology)	DAPDG-II	160	80 Hrs 3	75 Hrs 2	100	50
3	Dispensing, Community pharmacy and Hospital pharmacy (DCH)	DAPDCP -I	140	80 Hrs 2	75 Hrs 2	100	100
4	Fundamentals of Roga Nidana Evam Chikitsa (Ayurvedic Pathology)	DAPRN-I	060	60 Hrs 4	—	100	---
5	Pharmaceutical Jurisprudence and Drug House Management	DAPPJ-I	080	80 Hrs 4			

Scheme of University Examinations:

University Theory Question Paper Pattern Practical Pattern:

Question papers in English language and of 3-hour duration only.

1st Year

Subject	Long essay questions			Short essay Questions			Grand total
	No	Marks/ Q's	Total	No	Marks / Q's	Total	
Rasashastra And Bhaishajya Kalpana- Paper- I (Ayurvedic Pharmaceutics)	2	20	40	6	10	60	100
Dravyaguna – Paper- I (Ayurvedic Pharmacology)	2	20	40	6	10	60	100
Sharira (Anatomy & Physiology)	2	20	40	6	10	60	100
Fundamentals of Ayurveda And Swasthavritta	2	20	40	6	10	60	100

Final Year

Subject	Long essay questions			Short essay Questions			Grand total
	No	Marks/ Q's	Total	No	Marks / Q's	Total	
Rasashastra And Bhaishajya Kalpana – Paper- II (Ayurvedic Pharmaceutics)	2	20	40	6	10	60	100
Dravyaguna – Paper- II (Ayurvedic Pharmacology)	2	20	40	6	10	60	100
Dispensing, Community pharmacy and Hospital pharmacy (DCH)	2	20	40	6	10	60	100
Fundamentals of Roga Nidana Evam Chikitsa (Ayurvedic Pathology)	2	20	40	6	10	60	100
Pharmaceutical Jurisprudence and Drug House Management	2	20	40	6	10	60	100

*SEQ's Having optional mandatory Six question out of Eight

Practical Examination: Demonstration /Short question, Spotting and Viva Voce.

For 100 marks subject

Particulars	Distribution	Total marks
Demonstration of Practical	(1*30) (10*2=20)	30
SPOTTING		20
Viva Voce		50
	Total	100

For 50 marks subject

Particulars	Distribution	Total marks
Short question	(1*25)	25
Viva Voce		25
	Total	50

Criteria for Pass:

Minimum marks to be secured in each theory paper and practical paper are 50% separately.

A candidate failed in or more than one subject in examination shall be eligible to appear in supplementary examination.

In case of student fails to appear in regular examination for cognitive reasons he/she will appear in supplementary exam as a regular student.

Declaration of Class:

A candidate obtaining 50% and more but less than 60% of the marks in the grand total aggregate in the first attempt shall be declared to have passed the examination in Second Class.

A successful candidate obtaining 60% marks or more but less than 75% of marks in the aggregate of all the subjects in the first attempt will be declared to have passed the examination in First Class.

Successful candidates obtaining 75% of marks or more in the aggregate of all the subjects in first attempt will be declared to have passed the examination in distinction.

A candidate passing a university examination in more than one attempt shall be placed in Pass class irrespective of the percentage of marks secured by him / her in the examination

1st Year Syllabus

Subject: Rasashastra and BhaishajyaKalpana-Paper-I (Ayurvedic Pharmaceutics)

Teaching hours: 155

Examination: Theory: 100 marks

Weekly classes: (4T+2P)

Practical: 100 marks

SECTION-A

Sr. No.	Topic	No.ofHrs
1	Definition of Bhaishajya kalpana.	02
2	Manapariibhasha (Introduction, measurements according to AFI-I).	03
3	Collection, storage and preservation of raw material.	03
4	Saveeryataavadhi.	04
5	Panchvidhakashayakalpana (Introduction, definition, method, doseanduses), Kshirapaka, Pramathya and Mantha.	10
6	Introduction of Churnakalpana (Definition, types, method, dose, packaging, storage and current trends).	03
7	Introduction of Vatikakalpana, Guggulukalpana (Definition, synonym, method, types, dose, packaging, storage and current trends).	07
8	Introduction of Lavan and Ksharakalpana (Method, packing and storage).	02
9	Udakakalpana (Tandulodaka, Aushadhasiddhapaniya, Ushnodaka) Churnodaka.	03

SECTION-B

10	Definition of Rasashastra.	02
11	History of Nagarjuna.	03
12	Terminology- Shodhana, Maran, Bhavana, Avapa, Nirvapa, Panchamrita, Pancgavya, Panchmritika, Kajjali, Dravakagana, Mitrapanchaka.	06
13	Introduction of Puta (Gajaputa, Mahaputa, Varahaputa) and Yantra (Dolayantra, Damruyantra, Svedaniyantra, Valukayantra, Trividhapatanyantra).	5
14	Classification of Rasadravyas.	05
15	Introduction of Shodhanaand Maran.	02
16	Introduction of Parada, Dosha, Samanya Shodhana.	04
17	Introduction, shodhana, maran, dose, formulations of- Maharasa-Introduction, Abharaka, Makshik and Shilajita. Uparasa-Introduction, Gandhaka, Gairika, Kasis, Kankshi, Hartala and Manashila. Sadharan rasa- Introduction, Kampillaka, Hingula, Kapardika and Navsar.	06 07 03

Total: 80hrs. (Per Lecture 1Hr)

Practical: 25

Sl No.	Form	Examples
1	Swarasa	Adrakasvarasa&Tulasisvarasa
2	Kalka	Nimbapatrakalka
3	Kwath	Dashmulakvatha
4	Hima	Dhanyakadihima
5	Phanta	Sudarshanphanta
6	PutapakSwarsa	Vasa Putapak
7	Kshirapak	ArjunaKshirpak
8	Kanji	Tandulodaka
9	Shodhana	Parada
10	Do	Tuttha
11	Do	Gandhak
12	Do	Gairik
13	Do	Saphtik
14	Do	Hartala
15	Do	Navasadar
16	Do	Godanti
17	Do	Tankan
18	Maran	Abhrak
19	Do	Sphtik
20	Do	Hartal
21	Do	Sphtik
22	Do	Godanti
23	Do	Kasis
24	Do	Makshik
25	Do	Tankan

Total:25x3hrs.(75hrs.)

Identificationofdravyasusedin thepracticals(Tray).

Reference books:

Sl No.	Name of Book	Author	Publisher
1	Ayurvediya rasashatra Sachitra	Dr. C. B. Jha	Chaukambha Prakashan
2	Ayurvediya rasashatra	Badinarayan Pandey	Chaukambha Prakashan
3	Bhaishajyakalpana Vijananam	K.Ramchandra Reddy	Chaukambha Orientals

Subject: Dravyaguna – Paper-I (Ayurvedic Pharmacology)

Teaching hours: 155

Examination: Theory: 100 marks

Weekly classes: (4T+2P)

Practical: 50 marks

SECTION-A

Sr. No.	Topics	No. of hrs.
1	Definition of <i>Dravya</i> and <i>Dravyagunashastra</i> and its importance Dravya Vargikarna & Dravya Pradhanyata	05
2	Concept of <i>Rasapanchak</i> , <i>Rasa</i> - Definition, Types of <i>Rasa</i> , <i>Anurasa</i> . <i>Guna</i> - Definition, classification, Total No. of <i>Guna</i> , Description of <i>Gurodi Guna</i> and action on <i>Dosha</i> , <i>Dhatu</i> and <i>Mala</i> . <i>Vipak</i> - Definition, Types, Properties and action on <i>Dosha</i> , <i>Dhatu</i> and <i>Mala</i> . <i>Veerya</i> – Definition, Types, Properties, Action on <i>Dosha</i> , <i>Dhatu</i> and <i>Mala</i> . <i>Prabhav</i> – Definition, Introduction to the concept of <i>Prabhav</i> with examples.	20
3	Brief about the Classification of <i>Dravya</i> according to Ayurvedic Principles (a) <i>Karya-Karan bheda</i> (b) <i>Chetan- Achetan bheda</i> (c) <i>Panchbhautik composition</i> (d) <i>Yoni bheda</i> (e) <i>Prayogabheda</i> (f) <i>Rasabheda</i> (g) <i>Veeryabheda</i> (h) <i>Vipakbheda</i> (i) <i>Doshkarmabheda</i> (j) <i>Karmatmak</i> .	12

SECTION-B

4	Study of given <i>Karma</i> with definition and examples. (Total 51 <i>Karmas</i>)									17
	No	Karma	No	Karma	No	Karma	No	Karma	No	Karma
	1	Abhishyandi	12	Deepana	23	Medhya	34	Shramahara	45	Varnya
	2	Angamarda-prashamana	13	Grahi	24	Mutra-viranjaniya	35	Shukrajanan	46	Vidahi
	3	Arshoghna	14	Hikka-nigrahana	25	Mutra-virechaniya	36	Shukra-shodhana	47	Virechana
	4	Ashmari bhedana	15	Hridya	26	Paachana	37	Shwasahara	48	Vishaghna
	5	Balya	16	Jeevaniya	27	Purisha-viranjaniya	38	Stambhana	49	Vithambhi
	6	Brimhaniya	17	Jwararaha	28	Rasayana	39	Stanyajanan	50	Vranaropana
	7	Chakshushya	18	Kandughna	29	Sandhaniya	40	Stanya-shodhana	51	Vrana-shodhana
	8	Chhardi-nigrahana	19	Kanthya	30	Shiro-virechana	41	Trishma-nigrahana		
	9	Chhedana	20	Kasahara	31	Shonita-sthapana	42	Truptighna		
	10	Daha-prashamana	21	Keshya	32	Shoola-prashamana	43	Vajikarana		
	11	Dantya	22	Kushthagha Na	33	Shothahara	44	Vamana		
5	Method of drug collection, storage, preservations, <i>Aushadha sevana kala</i> and knowledge of combination and incompatibility.									04
6	Introduction, types and properties of below mentioned <i>vargas</i> : <i>Jala, madhu, taila, aaharopayogi, dugdha, dadhi, takra, ghrita, mutra, dhanya, shaka</i> and <i>phala</i> .									23

Total: 80 hrs. (Per Lecture 1Hr)

Note: Students will be trained in practical classes for *viva & voce*.

Total: 25 x 3 hrs. (75 hrs.)

Reference books:

Sl No.	Name of Book	Author	Publisher
1	Dravyaguna Vijananam	Gyanendra Pandey	Chaukambha Orientals
2	Bhavapraksha Nighantu	Vaidya Krishna Chandra Chuneekar Commentary	Chaukhambha Bharati Academy

Subject: Sharira (Anatomy & Physiology)

Teaching hours: 145

Examination: Theory: 100 marks

Weekly classes:(4T+2P) Practical: 100marks

SECTION-A

(Rachana Sharira)

Sr. No.	Topics	No.of Lect.
1	Structure of cell and its function.	3
2	Definition and Terminology with concept of Shadang Sharira.	2
3	Bones: Numbers, Types according to Ayurveda and Modern science.	2
4	General introduction of the systems of body with special emphasis to location, measurement and external features of the viscera of Digestive, Respiratory, Urinary and Cardiovascular system.	11
5	Sharira, Shaarira, Koshtha, Aashaya, Sira, Dhamani & Srotasa.	12
6	Brief introduction to Gyanendriya and Names of the Parts of Brain.	7

SECTION-B

(Kriya Sharira)

7	Concept of Dosha. Classification, characteristics and importance for physiological function.	7
8	General introduction of Dhātu, Updhātu and Ojus. Nourishment of Dhātu with different Nyaya.	12
9	Concept of three principal Mala, Their characteristic and function.	3
10	Names of Dhātu Mala.	1
11	Concept of Agni. Classification and importance. Ayurvedic and modern concept of digestion and metabolism.	7
12	Introduction of blood and its components like WBC, RBC, Platelets, Haemoglobin and Plasma.	6

Total: 73hrs. (Per Lecture 1Hr)

Practical: 24

1	Identification of Bones.
2	Nine regions of abdomen.
3	Organs of the digestive system.
4	Organs of respiratory system.
5	Hearts and its parts
6	Organs of the urinary system.
7	Organs of male and female reproductive system.
8	Brain and its parts.
9	Cell and its organelle.
10	Identification of Microscope, Haemocytometer, Haemoglobinometer.
11	Identification of contents of prepared slides. Different types of WBC, RBC and Platelets.
12	Method of estimation of Haemoglobin.
13	Method of examination of Urine & Its parameters.

Total: 24x3hrs. (72hrs.)

Reference Books:

Sl No.	Name of Book	Author	Publisher
1	Human Anatomy In Ayurveda (Shareera Rachana Vijnana)	Dr. U. Govind Raju	Chaukhambha Orientalia
2	Human Anatomy	B D Chaurasia	CBS Publishers & Distributors
3	Kriya sharer Vijnanaam	Dr. Pandey	Chaukhambha Orientalia
4	Essential of physiology	Dr. Sambhuligam	JP Publisher

Subject: Fundamentals of Ayurveda and Swasthvritta

Teaching hours: 70 Hrs

Examination: Theory: 100 marks

Weekly classes: (4T)

SECTION-A

Sr. No.	Topics	No. of Hrs
1	Definition of Ayu and Ayurveda with introduction to Ashtanga Ayurveda.	3
2	Name, definition and importance of Shat Padarth and introduction to Karanand Karya Dravyas.	10
3	Concept of Panch Mahabhuta and brief introduction of Disha, Kala, Atmaand Mana.	9
4	Introduction and utility of Pramana - Pratyaksha, Anuman, Aaptopadeshand Yukti.	8
5	Introductionto Brihatrayi, Laghutrayi, Rasa Ratna, Sammuchaya, Rasatarangini, Ayurveda Prakash, Bhaishajya Ratnavali and Rasamrita.	8

Fundamentals of Swasthavritta

SECTION-B

Sl No	Topic	No. of Hrs
6	Health in Ayurveda and Importance of Swasthavritta Subtopics (Each class 01 hr) Concept of Health Different aspects of Health Importance of Swastha and Swaasthya Concept of wellness	03
7	Concept of Healthy regimen in classics. Subtopics (Each class 01 hour) Basic principles of Healthy regimen in Ayurveda Seasonal regimen in Ayurveda Seasonal detoxification therapies Seasonal prophylaxis Prophylaxis during seasonal change Drugs during different seasons Codes of conduct as per classics	07
8	Health promotion Health Promotion measures in Ayurveda Wellness drugs in Ayurveda	02
9	Food and Nutrition in Ayurveda Concept of Food and its classification as per classics Concept of Nutrition Sources and functions of nutrients Nutritional deficiency disorders Concept of Nutrition in Ayurveda Classics	10
10	Rasayana Concept of Rasayana Classification of Rasayana drugs Application of Rasayana drugs	03
10	Occupational Health Introduction of industries Occupational health and Occupation Health hazards. Prevention and control of Occupational hazards	04
11	Legislation Introduction of Factory act. Introduction to ESI act	03

Reference Books:

Sl No.	Name of Book	Author	Publisher
1	Charaka Samhita	Yadavaji Trikamji	Chaukhambha Orientale
2	Sushrut Samhita	Yadavaji Trikamji	Chaukhambha Orientale
3	A text book Swasthavritta	Sushant baragale	Chaukhambha Orientale
4	A text book Swasthavritta	Sudhakar reddy	Chaukhambha Orientalia

Syllabus for Final Year

Subject: Rasashastra and BhaishajyaKalpana- Paper-II (Ayurvedic Pharmaceutics)

Teaching hours: 145

Examination: Theory: 100 marks

Weekly classes: (3T + 2P)

Practical: 100 marks

SECTION-A

Sr. No.	Topics	No. of Lect.
1	Introduction of Avalehakalpana (Definition, method, pakapariksha, dose, shelf- life, use, packing, storage and current trends).	07
2	Introduction of Snehakalpana (Definition of murchhan, sneha preparation method, avartan, paka, siddhi lakshana, dose, shelf-life, use, packing, storage and current trends).	07
3	Introduction of Sandhankalpana [Definition, types-names (description of Asava-Arishta only), method, parikshavidhi, dose, anupan, shelf-life, use, packing and storage].	07
4	Introduction of Pathyakalpana (Introduction, Manda, Peya, Vilepi, Yusha, Takra, Katvar, Udashvita and Mathita)	05
5	Introduction of Basti [Definition, types (definition only) and nirmana].	05
6	Introduction of Lepa and Malaharakalpana.	04

SECTION-B

7	Introduction of Ashtasamskar of Parada, Kajjali, Parpati, Kupipakwa, Pottali and Kharaliyarasayan.	16
8	Introduction , shodhana, maran, dose and formulations of- Dhatu- Svarna, Tamra, Loha, Vanga Ratna-Manikya, Pravala, Upratna-Introduction Visha and Upvisha- Vatsnabha, Bhallataka, Kupilu, Jaypal. Sudhavarga-Sudha, Godanti, Shankha, Shukti, Samudrafena.	05 04 05 05

Total: 70hrs. (Per Lecture 1Hr).

Practical: 25

Sl No.	Form	Examples
1	Churna	Triphala
2	Kwathchoorna	Dashmuuka
3	Arka	Gulabarka
4	Avaleha	Haridrakhana
5	Ghrita	TriphalaGhrita
6	Guti-Vati	EladiGutika
7	Guuggulu	Vidangadiguggulu
8	Taila	NorgundiTaila
9	Asava-Arishta	Arjunarishta
10	Bhasma	ShankhaBhasma
11	LavanKashara	Narikellavan
12	Lepa	Dashanglep
13	Anjana	Rasanja
14	Satva	GuduchiSatva
15	Kupipakwa	Rasasindur
16	Parparti	Rasaparpati
17	Pisti	ManikyaPisti
18	Rasayoga	Loknath Rasa
19	Lauha	SaptamrutaLauha
20	Capsule	With suitable dugs
21	Syrup	With suitable dugs
22	Ointment	With suitable dugs
23	Emulsion	With suitable dugs
24	Suspension	With suitable dugs
25	Cream	With suitable dugs

Total: 25 x 3 hrs. (75 hrs.)

Identification of dravyas used in the practicals. (Tray).

Reference Books:

Sl No.	Name of Book	Author	Publisher
1	Bhiashjya Guna Vijananm	Dr Alakh Narayan Singh	Chaukhambha Prakashan
2	Test book Rasashtra	Dr. S. N. Mishra	Chaukhambha Prakashan
3	Text book of Bhaishjya Kalpana	Dr. Shobhji Hiremath	Chaukhambha Prakashan

Subject: Dravyaguna - Paper-II (Ayurvedic Pharmacology)

Teaching hours: 160 hrs

Examination: Theory: 100 marks

Weekly classes: (3T + 2P)

Practical: 100 marks

SECTION-A

Sr. No.	Topics	No. of Lect.
1	Detailed knowledge of following <i>dravyas</i> with respect to main synonyms, regional names, botanical name, family, habit & habitat, external morphology, part used, <i>rasa panchaka</i>, pharmacological actions, therapeutic indications, dose and formulations. (Total 80 Dravyas) <i>Agnimanthu</i> 31 <i>Jatiphala</i> 60 <i>Sariva</i> <i>Amalaki</i> 32 <i>Kalamegha</i> 61 <i>Sarpagandha</i> <i>Apamarga</i> 33 <i>Kanchanara</i> 62 <i>Shalaparni</i> <i>Arjuna</i> 34 <i>Kantakari</i> 63 <i>Shallaki</i> <i>Arka dwayam</i> 64 <i>Shalmali</i> <i>Ashoka</i> 35 <i>Kapikacchhu</i> 65 <i>Shankhapushpi</i> <i>Ashwagandha</i> 36 <i>Kapooru</i> 66 <i>Shatavari</i> <i>Ativisha</i> 37 <i>Karanja</i> 67 <i>Shigru</i> <i>Baboolu</i> 38 <i>Karkatshringi</i> 68 <i>Shirisha</i> <i>Bakuchi</i> 39 <i>Ketaki</i> 69 <i>Shyonaka</i> <i>Bala</i> 40 <i>Khadira</i> 70 <i>Sunthi</i> <i>Bhallataka</i> 41 <i>Kiratatikta</i> 71 <i>Trivrutta</i> <i>Bhringaraja</i> 42 <i>Kumara</i> 72 <i>Tulasi</i> <i>Bilwa</i> 43 <i>Kutaja</i> 73 <i>Twak</i> <i>Bramhi</i> 44 <i>Lavanga</i> 74 <i>Vacha</i> <i>Chandana dwayam</i> 45 <i>Madanaphala</i> 75 <i>Varuna</i> <i>Chitraka</i> 46 <i>Mamejaka</i> 76 <i>Vasa</i> <i>Dhatu</i> 47 <i>Mandookaparni</i> 77 <i>Vatsanabha</i> <i>Draksha</i> 48 <i>Manjishtha</i> 78 <i>Vibhitaki</i> <i>Durva</i> 49 <i>Maricha</i> 79 <i>Vidanga</i> <i>Ela dwaya</i> 50 <i>Methika</i> 80 <i>Yashtimadhu</i> <i>Eranda</i> 51 <i>Musta</i> <i>Gambhari</i> 52 <i>Nagakeshara</i> <i>Gokshura</i> 53 <i>Nimbu</i> <i>Guduchi</i> 54 <i>Nirgundi</i> <i>Guggulu</i> 55 <i>Palasha</i> <i>Haridra</i> 56 <i>Patala</i> <i>Haritaki</i> 57 <i>Pippali</i> <i>Hingu</i> 58 <i>Punarnava</i> <i>Jatamansi</i> 59 <i>Rasona</i>	40

SECTION-B

2	Botanical name, family, part used, <i>veerya</i> , single main action of the following drugs. (Total 60 Dravyas)				20
	<i>Aavartaki</i>	21	<i>Kokilaksha</i>	41	<i>Saireyaka</i>
	<i>Aavartani</i>	22	<i>Kushmanda</i>	42	<i>Saptaparna</i>
	<i>Ashvattha</i>	23	<i>Kushtha</i>	43	<i>Sarpunkha</i>
	<i>Bharangi</i>	24	<i>Latakaranja</i>	44	<i>Shalparni</i>
	<i>Bhumyaamlaki</i>	25	<i>Lodhra</i>	45	<i>Shatapushpa</i>
	<i>Chakramarda</i>	26	<i>Majuphala</i>	46	<i>Shati</i>
	<i>Changeri</i>	27	<i>Markandika</i>	47	<i>Snuhi</i>
	<i>Chavya</i>	28	<i>Meshashringi</i>	48	<i>Surpunnaga</i>
	<i>Dadima</i>	29	<i>Mishreya</i>	49	<i>Tagara</i>
	<i>Danti</i>	30	<i>Musali</i>	50	<i>Talisapatra</i>
	<i>Daruharidra</i>	31	<i>Narikela</i>	51	<i>Tamalaptra</i>
	<i>Devadaru</i>	32	<i>Palandu</i>	52	<i>Tila</i>
	<i>Dhanyaka</i>	33	<i>Parisha</i>	53	<i>Udumbara</i>
	<i>Dhataki</i>	34	<i>Patola</i>	54	<i>Ushira</i>
	<i>Gunja</i>	35	<i>Plaksha</i>	55	<i>Vansha</i>
	<i>Jivanti</i>	36	<i>Priyangu</i>	56	<i>Vata</i>
	<i>Kampillaka</i>	37	<i>Prushnaparni</i>	57	<i>Vidari</i>
	<i>Kankola</i>	38	<i>Pushkaramoola</i>	58	<i>Vijayasara</i>
	<i>Karchura</i>	39	<i>Rasna</i>	59	<i>Vrukshamla</i>
	<i>Karvellaka</i>	40	<i>Rohitaka</i>	60	<i>Yavani</i>
3	Ingredients and collective action of following <i>Mishraka varga</i> . (Total 30 Mishrak varga)				25
	<i>Ashtavarga</i>	11	<i>Madhura triphala</i>	21	<i>Shadushna</i>
	<i>Aushadhi</i>	12	<i>Madhuratraya</i>	22	<i>Sugandhatriphala</i>
	<i>Chaturbeeja</i>	13	<i>Madhyama</i>	23	<i>Swalpatriphalapanchamoola</i>
	<i>Chaturbhadra</i>	14	<i>Panchagavya</i>	24	<i>Trijata</i>
	<i>Chaturjata</i>	15	<i>Panchakola</i>	25	<i>Trikantaka</i>
	<i>Chaturushna</i>	16	<i>Panchapallava</i>	26	<i>Trikarshika</i>
	<i>Chatusama</i>	17	<i>Panchasugandhika</i>	27	<i>Trikatu</i>
	<i>Dashamoola</i>	18	<i>Panchatikta</i>	28	<i>Trimada</i>
	<i>Kantaka</i>	19	<i>Panchavalkala</i>	29	<i>Triphala</i>
	<i>Katu chaturjata</i>	20	<i>Samatritaya</i>	30	<i>Truna</i>
	<i>panchanmoola</i>				

Total: 85 hrs. (Per Lecture 1Hr).

Practical: 25

1	Market survey of Ayurvedic drugs.
2	Description and identification of drugs mentioned in theory & Preparation of any 40 herbarium sheets of any drugs mentioned in theory syllabus.
3	Genuineness test of following substances. Gaudugdha, ghrita, hingu, madhu and guda.

Total: 25 x 3 hrs. (75 hrs.)

Reference Books:

Sl No.	Name of Book	Author	Publisher
1	Dravyaguna Vigyana(Vol. 1-2)	Yadavji Tikram Ji	Chaukhambha Prakashan
2	Dravyagunavijnana basic Principles	Prof.D.S.Lucas	Chaukhambha Prakashan

**Subject: Fundamentals of Roga Nidana Evam Chikitsa
(Ayurvedic Pathology)**

Teaching hours: 60

Examination: Theory: 100 marks

Weekly classes: (4T)

SECTION-A

Sr. No.	Topics	No. of Lect.
1	Causes and symptoms of increased and decreased Dosha, Dhatu, and Mala.	3
2	Definition and classification of Roga and Roga Pariksha according to Ayurved.	5
3	Classification of Roga – Sharirika, Manasika, Svabhavika, Agantuja, Adhyatmika, Adhibhautika and Adhidaivika.	3
4	Classification of Roga Priksha – Darshan, Sparshan and Prashna. Pratyaksha, Anuamana, Aptopadesh	4
5	Concept of Nidan Panchaka.	06
6	Concept of Shatkriyakala and its importance.	05
7	Concept of Ama – Definition, Symptoms and its importance.	05

SECTION-B

8	Definition and classification of Chikitsa. Daivavyapasharya, Yuktivyapashraya and Sattvavajay.	03
9	Concept of Chikitsa Chatushpada.	01
10	Brief introduction to Chikitsa Upakrama – Dwividha, Shadvidha. Name of Ashthavidha Shastrakarma and Saptavidha Vranopkrama.	07
11	Brief introduction to Panch Karma	05
12	Brief introduction to Rasayana, Vajikarana, Yoga Chikitsa and its importance.	4
13	Management principles of Dosha, Dhatu and Mala chikitsa. Srotos wise chikitsa.	06
14	Clinical application of Pathya apathya, Anupana, Bhesaja kala.	3

Total: 60hrs. (Per Lecture 1Hr)

Reference Books:

Sl No.	Name of Book	Author	Publisher
1	Madhav Nidanam	Sri Sudarshan Shastri	Chaukhambha Prakashan
2	Kayachikta	Kasturi	Chaukhambha Prakashan

**Subject: Pharmaceutical Jurisprudence &
Drug House Management**

Teaching hours: 80

Examination: Theory: 100 marks

Weekly classes: (4T)

SECTION-A

(Pharmaceutical Jurisprudence)

Sr. No.	Topics	No. of Lect
1	A brief review of Pharmaceutical Legislations in India -- An overview.	02
2	Brief study of : The Pharmacy Act – Objectives, constitution & Functions of PCI, SPC, JSPC; Offences and Penalty. Drugs & Cosmetics Act – Definition, Importance, Manufacture, sale of drug; Labelling & packaging of Drug, Administration of Act; Provisions for Ayurvedic products, Offences and Penalty, Schedules – an overview. Shops & Establishment Act – Registration, Working hours, working condition, Appointment letter, Wages, Offences and Penalty. Poisonous Drug Act – Handling and sale of Poison, Storage of Poison, Offences and Penalty. Drug & Magic remedies – Prohibited Advertisement, Prohibition on import and export of Advertisement, Offences and Penalty. (Air) Pollution act – Definitions – Pollutant, Pollutant, Etc., Pollution control area.	06 18 02 02 03 03 02
3	Brief Introduction of Patents Act and IPR – Patent, An overview, Types of Patent / IPR., Patent filing procedure, Things can be / cannot be patented, rights of patentee.	02
4	GMP for ASU medicines: Schedule T Quality Assurance Machineries and equipments of Ayurvedic Pharmacy.	04
5	Ayurvedic Pharmacopeia of India and Ayurvedic Formulary of India.	02

SECTION-B

(Drug House Management)

6	Trade & commerce - Introduction to Trade, Industry & Commerce- Meaning, characteristics, importance, auxiliary services.	7
7	Drug house Management: Legal requirements, formalities, site selection, Finance availability.	7
8	Purchases Management in Pharmaceutical Industry-Importance and objectives of Purchasing, selection of suppliers, purchase procedures, good purchase factors.	7
9	Inventory controls (Materials Management)- Definition, types of inventory, Techniques of inventory control, objectives of inventory control.	6
10	Marketing Pharmaceutical products, Advertisements, sales promotion, Training, compensation plans and salesmen.	7

Total: 80 hrs. (Per Lecture 1Hr)

Reference Books:

Sl No.	Name of Book	Author	Publisher
1	Pharmaceutical Jurisprudence	Dr.B.S.Kuchekar	Nirali Prakashan
2	Text book forensic Pharmacy	Dr. C. K. Kokate	Pharma Med Press

**Subject: Dispensing, Community pharmacy
and Hospital Pharmacy**

Teaching hours: 140 hrs

Examination: Theory: 100 marks

Weekly classes: (2T+2P)

Practical: 100 marks

SECTION-A

Sr. No.	Topics	No. of Lect.
1	Dispensing Pharmacy. Definition and introduction of Posology and Dispensing Pharmacy. factors affecting posology	2
2	Introduction to Prescription and dispensing techniques - Reading, understanding and handling of prescriptions.	4
3	Introduction to various dosage forms with Principles and procedures in mixtures, solutions, Emulsions, Churnas, Kwath churnas, Powders (Bhasmas etc.), external preparations, suppositories, basti, asavarishta, vati, gutika etc	5
4	Care required in dispensing procedures, labeling, storage, stability, maintenance and practice of Good hygienic conditions.	8
5	Community pharmacy- Define and introduction of Community Pharmacy	05
6	Role and contribution of pharmacist in community health care and education.	03

SECTION-B

7	Hospital and Hospital pharmacy : Introduction Drug distribution system in hospitals. (OPD-IPD). Drug information services, records and reports. Drug information services, records and reports. Brief introduction to processing of tablets, capsules, syrups, tinctures Surgical dressings, sterilization equipments and procedures	10
8	Patient counseling and Pharmacovigilance.	04
9	Introduction of first aid and introduction of national health programmes.	9

Total: 50 hrs. (Per Lecture 1Hr).

Practical: 30

1	Dispensing pharmacy in OPD-IPD for two days in a week.
2	To write Prescription and dispense Ayurvedic drugs and formulations for at least 15
3	Different diseases Etiology, Diagnosis & Treatment.
4	To identify and note the organoleptic characters and uses of at least 50 Drugs and formulations.

Total: 30 x 3 hrs. (90 hrs.)

Reference Books:

Sl No.	Name of Book	Author	Publisher
1	Dispensing And Community Pharmacy	Dr. S. B. Gokhale	Nirali Prakashan
2	A Text Book Of Hospital and Pharmacy	Dr. A. R. Paradkar	Pharma Med Press