



**Government Ayurvedic College  
& Hospital, Patna, Bihar**  
Established in 1926, Public/Government Institute  
Affiliated College of Aryabhata Knowledge University, Patna

**Government Ayurvedic College Hospital  
Patna, Bihar**

**FACULTY OF AYURVED**

*Approved by Ministry of Ayush,  
Affiliated with Aryabhata Knowledge University,  
Govt. of India and Central Council of Indian Medicine (CCIM).*

**Undergraduate (B.A.M.S)  
&  
Post- Graduate (M.D./M.S./Diploma in Ayurved)  
Syllabus/ Curriculum  
2016 courses & 2021 course.**

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## **Preface**

Ayurveda is accepted worldwide as one of the oldest traditional systems of medicine. The ancient insight into this traditional system of medicine is still not profoundly discovered. Ayurveda signifies as "the life-science " where ayur means "life" and veda means "science" in Sanskrit. Ayurveda is the upaveda i.e., "auxiliary knowledge of Atharvaveda in Vedic tradition with its prime origin from Atharva-Veda and a supplement of the Rig-Veda. Lord Dhanvantari is worshipped as the God of Ayurveda. The goal of this traditional medicine system is to prevent illness, disease cure and preserve life. Being originated in India Ayurveda extends its wings in various parts of the world. In ancient days Ayurveda was taught in Gurukula system, which is now evolved into graduate courses from Institutions.

The National Commission for Indian System of Medicine & Ministry of AYUSH, Government of India, New Delhi mention the standards for undergraduate and postgraduate programmes. It establishes suitable qualifications in Indian medicine and recognizes various forms of traditional practice including Ayurveda.

Ayurvedic practitioners also work in rural areas, providing health care to at least 500 million people in India alone. They therefore represent a major force for primary health care, and their training and placement are important to the government of India. Being a scientific medicine, Ayurveda has both preventive and curative aspects. The preventive component emphasizes the need for a strict code of personal and social hygiene, the details of which depend upon individual, climatic, and environmental needs.

Now Bachelor of Ayurvedic Medicine and Surgery, MD/MS in various discipline of Ayurveda started with the intention to encourage integrated teaching and de-emphasize compartmentalization of disciplines to achieve horizontal and vertical integration in different phases which helps to support National Health Services.

Looking into the health services provided to the public, understanding the need of practitioners of Ayurvedic system of medicine, as per the guidelines of apex body NCISM and suggestions provided by the faculty of various sections, stake holders and strategy of university this governance is framed.

**Faculty of Ayurved,  
Government Ayurvedic College & Hospital  
Patna, Bihar**

**Vision-**

To be a world class university for social transformation through dynamic education

**Mission-**

- To ensure the good health and longevity of mankind.
- To carve a niche for our college in the world of Ayurved education
- To provide
  - Borderless access to Ayurved education
  - Quality Ayurved education
- To promote
  - Quality research in diverse areas of health care system.
  - Extensive use of ICT for teaching, learning and governance.
  - To develop national and international networks with industry and other academic and research institutions.

## **Aims of BAMS programme**

- To create an efficient Physician capable of functioning independently in both urban and rural environment.
- To produce graduates of Ayurveda with thoughtful knowledge having deep base of scientific knowledge in harmony with Ayurvedic fundamentals with extensive practical training who would be able to become an efficient teacher, research worker and Kaya Chikitsak (Physician) and Shalayachikitsak (Surgeon) competent to serve for health services.

## **Objectives**

To develop following attitude and skills in our students -

- Knowledge of Ayurveda science, pertinent modern subjects, common investigations and their clinical interpretation, art of diagnosis of common ailments, selection and administration of suitable Pancha karma procedures, common single and compound drug formulations, Pathyaapathya, preventive measures, Rasayana, National Health Programme.
- Capable to perform Para surgical procedures, conduct deliveries and resuscitate newborn babies.

## **Program Outcomes for Undergraduate Course of Ayurveda**

- The Bachelor of Ayurved will have profound knowledge of Ashtanga Ayurved backed up by extensive practical training.
- This knowledge will be supplemented by scientific advances in modern medicine along with extensive practical training.
- The BAMS graduate will become a globally competent Ayurved practitioner and a research scholar to serve the health care services.

### **Program specific outcome**

The BAMS degree holder should be capable of functioning independently in both urban and rural environments.

### **Course out comes-**

*After completion of B.A.M.S course the Graduates of Ayurved –*

- Should have thorough knowledge of all the subjects including Sanskrit so that he/she can have the ability to interpret Sanskrit quotations from Classical texts of Ayurved.
- Must have practical/ clinical skills in all the subjects.
- Can diagnose and treat the patients independently with Ayurved management.
- Should be able to conduct minor procedures and preliminary management of accidental cases.
- Should be able to treat the patients with empathy and have proper interpersonal and communication skills as competent health care professionals.
- ought to have the current knowledge of recent advances in the field by self-learning and /or participating in continuing Medical Education Programs.
- Shall be able to critically analyze relevant published research literature and use them appropriately to influence practice of Ayurved.
- Must be able to participate in the National health program.

## **Regulations governing the B.A.M.S. programme (NCISM- Minimum standards of Undergraduate Ayurved education- Regulations- 2022**

### **Eligibility**

The eligibility to seek admission in Bachelor of Ayurveda education shall be as under, -

- (a) The candidate shall have passed 10+2 or its equivalent examination from any recognized Board with Physics, Chemistry, Biology and have obtained minimum of fifty per cent. marks taken together in Physics, Chemistry and Biology in the case of general category and forty per cent. marks in the case of the Scheduled Castes, Scheduled Tribes and Other Backward Classes: Provided that in respect of persons with disability candidate specified under the Rights of Persons with Disabilities Act, 2016 (49 of 2016), the minimum qualifying marks in the said examinations shall be forty-five per cent. in the case of the General category and forty per cent. in the case of the Scheduled Castes, Scheduled Tribes, and Other Backward Classes.
- (b) Students must secure minimum eligibility marks as specified in NEET or any other equivalent examinations as notified by apex bodies/Ministry of AYUSH
- (c) No candidate shall be admitted to B.A.M.S Degree programme unless the candidate attained the age of seventeen years on or before the 31<sup>st</sup> December of the year of admission in the first year of the programme.

### **Medium of instruction**

The medium of instruction for the programme shall be Sanskrit or Hindi or any recognized regional language or English with use of Ayurvedic technical terms.

### **Duration of the Course Study**

#### **Total duration of course – Five and Half years**

- a) **First Profession- 18 Months [ Course 2021], 12 Months [Course 2017]**
- b) Second Profession- 12 Months [ Course 2017]
- c) Third profession -12 Months [ Course 2017]
- d) Forth Profession- 18 Months [ Course 2017]
- e) Compulsory Internship- 12 Months

## Subjects taught, Number of lectures/ practical and demonstrations for various subjects [ First year B.A.M.S.]

Sr No.	Subject with code	Number of teaching hours		Total
		Lectures	Non-Lectures	
1	Sanskritam evam Ayurved Ithihas AyUG-SN and AI (Sanskrit and History of Ayurveda)	100	200	300
2	PadarthaVigyan AyUG-PV (Fundamental Principles of Ayurveda and Quantum Mechanics)	90	140	230
3	Kriya Sharira AyUG-KS (Human Physiology)	150	250	400
4	Rachana Sharira AyUG- Human Anatomy RS	180	320	500
5	Samhita Adhyayan-1 AyUG-SA1 (Study of Ayurveda Classical Text )	140	260	400
6	Electives (Minimum Three) subjects			
	Total hours	660	1170	1830

The First Professional examination shall ordinarily be held and completed by the end of first professional session.

### Attendance and Progress

Each student shall be required to maintain minimum seventy-five percent attendance in each subject in theory (i.e., lecture hours) practical and clinical (i.e., non-lecture hours) separately for appearing in examination at the end of academic year subject to the condition that his/her progress and conduct are counted satisfactory by the principal.

### Scheme of Examination

#### Periodical assessment

There shall be minimum three periodical assessments for each subject before First Term Test ordinarily at 6<sup>th</sup> month of respective professional B.A.M.S.) minimum of three periodical assessment before Second Term Test (ordinarily at 12<sup>th</sup> month of respective professional B.A.M.S.) and minimum of three periodical assessments before final university examinations (Summative Assessment) of respective professional B.A.M.S.

#### Scheme of Assessment (Formative and Summative)]

Sl. No.	Professional Course	Duration of Professional Course		
		First Term (1-6 Months)	Second Term (7-12 Months)	Third Term (13-18 Months)
1	First Professional B.A.M.S.	3 PA and First TT	3 PA and Second TT	3 PA and UE

**Sanskrit and Samhita Adhyayan** 1- Average 15 marks from the 03 periodical assessment and 15 marks of the term examination will be calculated and converted to 15 marks will be the IA practical exam marks.



**Kriya Sharir, Rachana Sharir and Padartha Vijnana-** Average 15 marks from the 03 periodical assessment converted to 30 marks and 30 marks of the term examination will be calculated and converted 30 marks will be the IA practical exam marks.

### University Examination

The theory examination shall have twenty percentage marks for Multiple Choice Questions (MCQ), forty percentage marks for Short Answer Questions (SAQ) and forty percentage marks for Long Explanatory Answer Questions (LAQ) and these questions shall cover the entire syllabus of the subject.

The minimum marks required for passing the examination shall be fifty per cent. In theory component and fifty percent in practical component (that include practical, clinical, viva-voce, internal assessment and electives wherever applicable) separately in each subject.

### Number of Papers and Marks Distribution for First Professional B.A.M.S. Subjects

Sl.No.	Subject Code	Papers	Theory	Practical or Clinical Assessment					Grand Total
				Practical/ Clinical	Viva	Electives	IA	Sub Total	
1.	AyUG-SN & AI	2	200	-	75*	10 (Set-FA)	15	100	300
2.	AyUG-PV	2	200	100	60	10 (Set-FB)	30	200	400
3.	AyUG-KS	2	200	100	70	-	30	200	400
4.	AyUG-RS	2	200	100	70	-	30	200	400
5.	AyUG-SA1	1	100	-	75	10 (Set-FC)	15	100	200
<b>Grand Total</b>									<b>1700</b>

\*Viva voce examination shall be for Sanskrit and not for Ayurved Ithihasa (Set-FA, FB, FC – sets of Electives for First Professional B.A.M.S.)

### Evaluation of Electives. -

Electives shall be evaluated in terms of attendance and assessment and based on evaluation; the student shall be awarded credits as well as grades as below.

- One credit shall be awarded for attending a minimum of five hours of a modular programme and a student can earn a maximum of five credits for each elective.
- Assessment shall be conducted at the end of each module and an average of five modular assessments shall be considered for grading i.e., up to 25 per cent. Bronze; 26-50 per cent. Silver; 51-75 per cent. Gold; 76 per cent. and above Platinum.
- Students may opt any one elective as per their choice from each set specified for respective professional B.A.M.S.
- Weightage of two marks for each credit and maximum of ten marks shall be awarded for each elective.

- Apart from three mandatory electives for each profession, students have freedom to choose and qualify as many numbers of additional electives as per their interest.
- Marks weightage shall be only for three electives per professional session i.e., one elective subject from each set of respective professional session.
- A separate online certificate shall be generated for each elective mentioning credits earned and grades obtained.

### **Declaration of Class**

- A candidate obtaining sixty-five per cent. and above marks shall be awarded first class in the subject and seventy five percent and above marks shall be awarded distinction in the subject.
- The award of class and distinction shall not be applicable for supplementary examinations.

### **Migration**

1. The students may be allowed to take the migration to continue their study to another college after passing the First Professional examination, but failed student's transfer and mid-term migration shall not be allowed.
2. For migration, the students shall have to obtain the mutual consent of both colleges and universities, and it shall be against the vacant seat.

**Syllabi**  
**SAMSKRITAM EVAM AYURVED ITHIHAS**  
 (SUBJECT CODE-AyUG-SN & AI)  
**SANSKRIT AND HISTORY OF AYURVEDA**

<b>AyUG-SN &amp; AI</b>			
<b>Total number of Teaching hours: 300</b>			
<b>Lecture hours (LH) – Theory</b>		<b>100 Hours</b>	<b>100 Hours (LH)</b>
Paper I	50 Hours		
Paper II ( Sanskrit 40+ AI 10)	50 Hours		
<b>Non-Lecture hours (NLH) – Theory</b>		<b>140 Hours</b>	<b>200 Hours (NLH)</b>

**AyUG-SN & AI- Contents of Course**

Sr No	A2 List of Topics AyUG-SN & AI Paper I	B2 Term	C2 Marks	D2 Lecture hours	E2 Non-Lecture hours
<b>Paper I Sanskrit</b>					
<b>1</b>	संस्कृतवर्णानाम् परिचयः – माहेश्वरसूत्राणि, उच्चारणस्थानानि, बाह्यप्रयत्नानि, अभ्यन्तर प्रयत्नानि	<b>I</b>	<b>05</b>	<b>3</b>	<b>10</b>
<b>2</b>	संज्ञा- 2.1 - संयोगः, संहिता, ह्रस्वदीर्घप्लुतः, अनुनासिकः, पदम्, धातुः, उपसर्गः, गुणः, वृद्धिः [विस्तरेण पाठनम् - Detailed teaching] 2.2 - इत्, लोपः, प्रत्याहारः, उदात्तः, अनुदात्तः, स्वरितः, सवर्णः, निपातः, प्रगृह्यम्, [सङ्क्षिप्य पाठनम् – Brief teaching]	<b>2.1 – I 2.2 – II</b>	<b>05</b>	<b>05</b>	<b>-</b>
<b>3.</b>	उपसर्गाः- उपसर्गाः क्रियायोगे प्र, परा, अप, सम्, अनु, अव, निस्, निर्, दुस्, दुर्, वि, आङ्, नि, अपि, अधि, अति, सु, उत्, अभि, प्रति, परि, उप	<b>II</b>	<b>05</b>	<b>02</b>	<b>03</b>
<b>4.</b>	अव्ययानि 4.1 - च अपि खलु हि तु किल ननु वा च एव 4.2- पुनः विना उच्चैः ऋते एवम् सह सार्धम् युगपत् यथा –तथा यावत्-तावत् इति यदा-तदा यदि-तर्हि साकम् न कुत्र कति कुतः किमर्थम् कियत् इह अत्र तत्र सर्वत्र अन्यत्र कुत्र एकत्र सदा अन्यथा एकथा [विस्तरेण पाठनम् - detailed teaching] A) Identify अव्ययानि B) Explain the meaning with reference to the context C) Construct the sentences using अव्ययानि	<b>I A II B III C</b>	<b>5</b>	<b>I -01 II-01</b>	<b>I-0 II-0 III-03</b>
<b>5.</b>	कारकप्रकरणम् – कर्तृकारकम्, कर्मकारकम्, करणकारकम्, सम्प्रदानकारकम्, अपादान कारकम्, अधिकरणकारकम्, सम्बन्धः, उपपदविभक्तिः सूत्रसहितपाठनं परं परीक्षायां सूत्रव्याख्यानादि प्रश्नानि न प्रष्टव्यानि   A) Discriminate the विभक्ति and their meaning. B) Identify the karakas from Ayurveda texts like करणम् कारणम् C) Construct sentences D) Translate sentences from English to Sanskrit & from Sanskrit to English.	<b>I A II B III C, D</b>	<b>15</b>	<b>I- 05</b>	<b>II-05 III-05</b>
<b>6.</b>	सन्धिः 6.1 - अच् सन्धिः/स्वरसन्धिः - यण् सन्धि -इको यणचि, गुण सन्धिः=आहुणः वृद्धिसन्धिः-वृद्धिरेचि, अयवायाव सन्धिः - एचोऽयवायावः/वान्तो यि	<b>II</b>	<b>15</b>	<b>10</b>	<b>10</b>

	<p>प्रत्यये, लोप सन्धिः-लोपः शाकल्यस्य, पररूपसन्धिः-एङि पररूपम्, पूर्वरूपसन्धि- एङः पदान्तादति, प्रकृतीभाव- सर्वत्र विभाषा गोः , प्लुत प्रगृह्य अचि नित्यम्    <b>सूत्रसहितपाठनं परं परीक्षायां सूत्रव्याख्यानादि प्रश्नानि न प्रष्टव्यानि  </b>  <b>6.2 - हल्सन्धिः /व्यञ्जनसन्धिः - ध्रुत्वसन्धिः- स्तोः ध्रुना ध्रुः, ष्टुत्वसन्धिः- ष्टुना ष्टुः, जश्त्व सन्धिः-झलां जशो/न्ते, अनुनासिकसन्धिः-</b>  यरोऽनुनासिकेऽनुनासिको वा/प्रत्यये भाषायां नित्यम्, परसवर्णसन्धिः-तोर्लिः/वा पदान्तस्य, चर्त्वसन्धिः  खरि च, पूर्वसवर्णसन्धिः-झयोऽहोऽन्यतरस्याम्, छुत्वसन्धिः  शश्छोऽटि/ छत्वममीति वाच्यम्, अनुस्वारसन्धिः- मोऽनुस्वारः, तुगागमसन्धिः- शि तुक्/छे च/पदान्ताद्वा, रुत्वआदेशसन्धिः-नश्छव्यप्रशान्  <b>सूत्रसहितपाठनं परं परीक्षायां सूत्रव्याख्यानादि प्रश्नानि न प्रष्टव्यानि  </b>  <b>6.3 - विसर्गसन्धिः - रुत्वसन्धिः-ससजुषो रुः, उत्त्वसन्धिः-अतो</b>  रोरप्लुदादप्लुते/हशि च, रो रि, भो भागो अघो अपूर्वस्य योऽशि , रोऽसुपि , एतत्तदोः सुलोपोऽकोरनञ् समासे हलि, सोऽचि लोपे चेत् पादपूरणम्    <b>सूत्रसहितपाठनं परं परीक्षायां सूत्रव्याख्यानादि प्रश्नानि न प्रष्टव्यानि  </b>  <b>6.4.- रुत्वप्रकरणसन्धिः- [ सङ्क्षिप्य पाठनम् – Brief teaching]</b>  समः सुटि, कानाम्प्रेडिते च, अत्रानुनासिको पूर्वस्य तु  वा, अनुनासिकात्परोऽनुस्वारः, खरवसानयोर्विसर्जनीयः, विसर्जनीयस्य सः, सम्पुङ्कानां सो वक्तव्यः  </p>				
<p>7.</p>	<p><b>समास</b>  <b>7.1 - अव्ययीभावसमासः - 7.1.1 - अव्ययम्</b>  विभक्तिसमीपसमृद्धिव्यर्थार्थाभावात्ययसम्प्रतिशब्दप्रादुर्भावपश्चाद्यथानुपूर्व्ययोगप  द्यसादृश्यसम्पत्तिसाकल्यान्तवचनेषु   <b>7.1.2. - प्रथमा निर्दिष्टम् उपसर्जनम्, /</b>  <b>उपसर्जनं पूर्वम् /नाव्ययीभावादतो/ म् त्वपञ्चम्याः/ तृतीयासप्तम्योर्</b>  <b>बहुलम्/अव्ययीभावे चाकाले  </b>  <b>7.2. - तत्पुरुष समासः - द्वितीया श्रितातीतपतितगतात्यस्तप्राप्तापनैः, तृतीया</b>  <b>तत्कृतार्थेन गुणवचनेन, कर्तृकरणे कृता बहुलम्, चतुर्थी तदर्थार्थ</b>  <b>बलिहितसुखरक्षितैः, पञ्चमीभयेन, षष्ठी, सप्तमीशौण्डैः, विशेषणं</b>  <b>विशेष्येणबहुलम्, उपमानानि सामान्यवचनैः, नञ्, कर्मधारय, द्विगुः,</b>  <b>उपपद तत्पुरुष</b>  <b>7.3 - बहुव्रीहि समासः - अनेकमन्यपदार्थे</b>  <b>7.4 - द्वन्त्वसमासः - चार्थे द्वन्द्वः</b>  <b>सूत्रसहितपाठनं परं परीक्षायां सूत्रव्याख्यानादि प्रश्नानि न प्रष्टव्यानि  </b></p>	<p>II</p>	<p>15</p>	<p>09</p>	<p>10</p>
<p>8.</p>	<p><b>शब्दरूपाणि</b>  <b>8.1 - पुल्लिङ्गःशब्दरूपाणि</b>  अकारान्तः - वात, वैद्य, रुग्ण, राम आदि  इकारान्तः - अग्नि, मुनि आदि  उकारान्तः - ऋतु, भानु गुरु आदि  ऋकारान्तः - नृ, धातृ, पितृ आदि</p>	<p>I</p>	<p>10</p>	<p>02</p>	<p>14</p>

	<p>ओकारान्तः - गो आदि  नकारान्त – श्लेश्मन्, रोगिन्, ज्ञानिन् आदि  सकारान्त – चन्द्रमस् आदि  तकारान्त – मरुत् आदि  दकारान्त – सुहृद् आदि  जकारान्त – भिषज्, आदि  शकारान्तः - कीदृश्, एतादृश् आदि</p> <p><b>8.2 - स्त्रीलिङ्गःशब्दरूपाणि</b>  आकारान्तः - बला, कला, स्थिरा, माला आदि  इकारान्तः - सम्प्राप्ति, प्रकृति, मति आदि  ईकारान्तः - धमनी, नदी आदि  उकारान्तः - रज्जु, धेनु आदि  ऊकारान्तः - वर्षाभू, वधू आदि  ऋकारान्तः - मातृ आदि  चकारान्तः - वाच् आदि  तकारान्तः - योषित्, सरित् आदि  दकारान्तः - परिषद् आदि  जकारान्तः - स्रज् आदि  सकारान्तः - जलौकस्, सुमनस् आदि  षकारान्तः - प्रावृष् आदि</p> <p><b>8.3 – नपुंसकलिङ्ग शब्दरूपाणि</b>  अकारान्तः - पित्त, वन आदि  उकारान्तः - अश्रु, मधु आदि  इकारान्तः - अक्षि, अस्थि, वारि, दधि आदि  ऋकारान्तः - ज्ञातृ, धातृ आदि  नकारान्तः - वर्त्मन्, दण्डिन् आदि  सकारान्तः - स्रोतस्, मनस् आदि  षकारान्तः - सर्पिष्, आयुष् आदि  तकारान्तः - शकृत्, जगत् आदि</p> <p>अष्टाङ्गहृदयसंहितायाम् विद्यमानानाम् अन्यानामपि समानानामरूपाणाम्  परिचयकरणम् अभिलषणीयम्   प्रश्नपत्रे न प्रष्टव्यम्  </p> <p><b>8.4 - सर्वनामपदानि – अस्मद्, युष्मद्, तद्, एतद्, यद्, किम्, इदम् आदि</b></p>				
<p><b>9.</b></p>	<p>धातुरूपाणि – [विस्तरेण पाठनम्-detailed teaching]</p> <p><b>9.1 - परस्मैपदि - लट्/लृट्/लङ्/विधिलिङ्/लोट्</b>  भ्वादि गण - भू सत्तायाम्, क्षि क्षये, गम्(गम्) गतौ, पा पाने, जीव्, पच्,  त्यज्, दृश् (पश्य)  अदादि गण - अद् भक्षणे, हन् हिम्सागत्योः, वा गतिगन्धनयोः पा रक्षणे, अस्,  श्चस्, स्वप्, ब्रू  जुहोत्यादि गण- धा धारणपोषणयोः, पृ - पलनपूरणयोः, हा त्यागे, दा (दाञ्)  दिवादि गण- दिव् क्रीडादौ, त्रसी उद्वेगे, पुष् पुष्टौ, कुप्, नश्, तुष्, स्निह्, जृ  स्वादि गण- चिञ् चयने, शक्, श्रु  तुदादि गण- तुद् व्यथने, कृष् विलेखने, लिख् लेखने, दिश्, कृन्त्, क्षिप्, स्पृश्</p>	<p><b>I</b></p>	<p><b>10</b></p>	<p><b>05</b></p>	<p><b>05</b></p>

<p>रुधादि गण- रुधिर् आवरणे, भिदिर् विदारणे, भुज् तनादि गण- तनु विस्तारे, कृञ् करणे त्रयादि गण- प्रीञ् -तर्पणे कान्ते च, ग्रह उपादाने, ज्ञा चुरादि गण- गण संस्थाने, साध्, ताड्, धृ, कथ् वाक्यप्रबन्धे आत्मनेपदि- भ्वादि गण - वृत् वृत्तने, वृध्(वर्ध्), लभ्, सेव्, रुच् अदादि गण - शीङ् स्वप्ने, ब्रू जुहोत्यादि गण- धा धारणपोषणयोः, दा (दाञ्), दिवादि गण- जनी प्रादुर्भाव, मन्, बुध्, पद्, विद् स्वादि गण- चिञ् चयने, तुदादि गण- तुद् व्यथने, कृष् विलेखने, म्रि, विद्, मुच्, सिञ्च्, रुधादि गण- रुधिर् आवरणे, भिदिर् विदारणे, भुज् तनादि गण- तनु विस्तारे, कृञ् करणे त्रयादि गण- प्रीञ् -तर्पणे कान्ते च, ग्रह उपादाने, ज्ञा चुरादि गण- चुर्, क्षाल्, कथ्, घोष्, भक्ष् आयुर्वेदसंहितासु विद्यमानानां धतुरूपाणां परिचयीकरणम् अभिकाम्यम् <b>9.2 - लृङ् , आशीर्लिङ्, लिट् , लुङ्, लुङ् [सङ्क्षिप्य पाठनम्-Brief teaching]</b> भ्वादि गण, अदादि गण, जुहोत्यादि गण, दिवादि गण, स्वादि गण, तुदादि गण, रुधादि गण, तनादि गण, त्रयादि गण, चुरादि गण पूर्वोक्तधातुष्वेकस्य पञ्चलकारेषु रूपाणि दर्शयेत्   परं परीक्षायाम् न पृष्टव्यानि  </p>				
<p><b>10</b> प्रत्ययाः <b>10.1 –</b> क्त - क्तवत्, तव्यत् – अनीयर्, शतृ – शानच्, ल्युट् - ष्वुल्, क्त्वा - ल्यप्, णिनिः, क्तिन्, तुमुन् प्रत्ययाणाम् प्रयोगाः एव पृष्टव्याः   <b>10.2 -</b> भावे घञ्, करणे घञ्, भावे ष्यञ्, कर्मणि ष्यत्, कर्त्तरि अच् अप् आयुर्वेदसंहितायां विद्यमानानां भावे/करणे/कर्त्तरि/ताच्छील्ये/ आदि प्रत्ययानां परिचयः करणीयः   परं परीक्षायाम् न पृष्टव्याः   परीक्षायाम् वाच्य प्रयोगः स्वरूपे पृष्टव्यः  </p>	<b>II</b>	<b>10</b>	<b>05</b>	<b>6</b>
<p><b>11</b> विशेषण विशेष्य</p>	<b>II</b>	<b>05</b>	<b>02</b>	<b>03</b>

<b>Paper II – Part A Sanskrit</b>					
	<b>A2 List of Topics (Maximum Marks – 80 (SAQ &amp; LAQ only))</b>	<b>B2 Term</b>	<b>C2 Marks</b>	<b>D2 Lecture hours</b>	<b>E2 Non- Lecture hours</b>
<b>1</b>	निरुक्ति तथा पर्याय पदानि- A) आयुः, शरीर, मनः, अग्निः, जलम्, वातः, पित्तम्, कफः B) रस, रक्त, मांस, मेद, अस्थि, मज्जा, शुक्र, इन्द्रियम्, श्रोत्रः, चक्षुः, रसना, घ्राण C) धी, धृति, स्मृति, बुद्धी, मति, प्रज्ञा, मूत्र, पुरीषः, स्वेद, आत्मा, रोगः, निदानम्,	A - I B - II C - III	15	7 (A-1, B-3, C-3)	13 (A- 4, B-4, C-5)

	रोगिः, भेषजचिकित्सा, आदि				
<b>2</b>	परिभाषापदानि – A) आयुर्वेदः, पञ्चमहाभूतानि, त्रिगुणम्, दोषाः, मलाः, दूष्यम्, सम्सर्गः, सन्निपातः B) द्रव्य, गुण, कर्म, सामान्य, विशेष, गुरु, लघु, प्रकृतिः, विकृतिः, चयः, प्रकोपः, प्रसरः, स्थानसम्श्रयः, दोषगतिः भेदः, रसः, वीर्यम्, विपाकः, कार्यकारणभावः C) स्रोतस्, कोष्ठः, आमम्, विरुद्धाहम्, विरुद्धाहारः, विदाहि, विष्टम्भि, सात्म्यम्, ओकसात्म्यम्, देशसात्म्यम्, अत्यशनम्, अध्यशनम्, स्थानी, योगवाही, पथ्यम्, अपथ्यम्, कृतान्तवर्गः, अवस्थापाकः, वेगः, शोधन, शमन, लंघन, बृहण, अनुपान आदि	A - I B - II C - III	20	10 (A-2, B-4, C- 4)	15 (A- 5, B-5, C-5)

<b>3.</b>	अन्वयलेखनम् - A) अष्टाङ्गहृदयम् सूत्रस्थानम् - अध्यायतः सर्वाणि सूत्राणि १. आयुष्कामीयम् २. दिनचर्या ३. रोगानुत्पादनीयम् B) अष्टाङ्गहृदयम् सूत्रस्थानम् - अध्यायतः सर्वाणि सूत्राणि दोषादिविज्ञानीयम् दोषभेदीयम् दोषोपक्रमणीयम् द्विविधोपक्रमणीयम् C) वैद्यकीय सुभाषितसाहित्यम् - shloka numbers – (भास्कर गोविन्द घाणेकर लिखित, चौखम्बा प्रकाशन) प्रथमः 1, 2 द्वितीयः 1, 7 तृतीयः 9 चतुर्थः 2, 3 पञ्चमः 2, 3 षष्ठः 1, 4, 7 सप्तमः 2, 5, 17 अष्टमः 13, 12 नवमः 12, 13 दशमः 1, 19 एकादशः 1, 2 द्वादशः 1, 6 त्रयोदशः 1, 7, 8, 9	A - I B - II C - III	30	20 (A- 4, B- 8, C- 8)	14 (A- 4, B- 5, C- 5)
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	<p>चतुर्दशः 2, 3, 4</p> <p>पञ्चदशः 7, 10</p> <p>षोडशः 5, 6</p> <p>सप्तदशः 1, 4</p> <p>अष्टादशः 1, 2, 3</p> <p>एकोनविंशतिः 2, 3, 4</p> <p>विंशतिः , 12, 3, 4</p> <p>श्लोकपूरणं न प्रष्टव्यम् परीक्षायाम्   पदच्छेदं विग्रहवाक्यम् अन्वयः वाक्यार्थं भावार्थं इत्यादयः एव प्रष्टव्याः  </p>				
4.	<p>पञ्चतन्त्र-अपरीक्षितकारकम् ५ अध्याय</p> <p>कथा -१ नापितक्षपणक कथा</p> <p>कथा-२ नकुलीब्राह्मणी कथा</p> <p>कथा-३ चक्रधर कथा</p> <p>कथा-४ सिंहकारक मूर्खपण्डितकथा</p> <p>कथा-५ मूर्खपण्डित कथा</p> <p>श्लोकपूरणं तथा अन्वयलेखनं न प्रष्टव्ये  </p>	III	15	03	04

**Paper II – Part B – Ayurved Itihas –**

	A2 List of Topics AyUG SN & AI (Maximum Marks – 20 (MCQ only))	B2 Term	C2 Marks	D2 Lecture hours	E2 Non- Lecture hours
1	Derivation (Vyutpatti and Nirukti) and definition of Itihasa. Necessity, Significance and Utility of knowledge of Ayurveda itihasa. Means and method of study of Ayurveda itihasa. Different Time periods relevant for the Study of Ayurveda itihasa (viz, Prevedic, Vedic, Samhita kala, Sangraha kala etc.)	I	5	1	2
2	Origin and lineage of Ayurveda (Ayurvedavatarana) and Introduction of references of Ayurveda in Veda, Upanishat and Puarana.	I		1	2
3	Structure, Specialities, Time period of Ayurveda Samhitas and their commentaries (including Special contributions of authors and commentators): Charaka Samhita, Sushruta Samhita, Ashtanga Sangraha, Ashtanga Hridaya, Bhela Samhita, Hareeta Samhita, Kashyapa Samhita.	I	5	2	2



4	Structure, Contributions and importance of Laghutrayee and Commentaries: Madhava Nidana, Sharngadhara Samhita, Bhavaprakasha.	II		1	3
5	Origin and period of different systems of medicine in the world.	II	5	1	2
6	Introduction to Vrukshayurveda, Hastyayurveda and Ashwayurveda. (Included in Transitional Curriculum)	II		-	1
7	Status of Ayurveda during the period of Ashoka, Mughal and British rule.	II		1	2
8	Contribution of Scholars of modern era: Acharya Gana Nath Sen, Vaidya Yamini Bhushan Rai, Vaidya Shankar Dajishastri Pade, Acharya Swami Lakshmiram, Acharya Yadavji Tikramji, Dr. PM. Mehta, Vaidya B G Ghanekar, Vaidya Damodar Sharma Gaur, Acharya Priyavrat Sharma, Vaidya C Dwarakanath, Vaidya K R Shrikantamurthy, Vaidya VJ Thakkar, Vaidyaratnam PS Varier, Vaidya B V Gokhale.	III	5	1	2
9	Globalization of Ayurveda	III		1	2
10	1) Developmental activities in Ayurveda in the post-independence period: <ul style="list-style-type: none"> <li>• Introduction to various committees and their recommendations</li> <li>• Introduction of activities of the following Organizations : Department of AYUSH, CCIM/ NCISM, CCRAS,</li> </ul> 2) National institutions Viz- All India Institute of Ayurved (AIIA), National Institute of Ayurveda, Jaipur. ITRA, Jamnagar. Faculty of Ayurveda, BHU, Varanasi. Rashtriya Ayurveda Vidyapeetha, New Delhi.	III		1	2

**AyUG- SN & AI -Non Lecture Activities Course**

List non lecture Teaching-Learning methods	No of Activities	Total
Sanskrit		
Presentation of videos	2	120
Graphical Representation of Vocal system	1	
Guided Reading,	5	
Peer learning	4	
PBL	36	
Quizes, puzzles, cross word, word cloud	13	
Group activities	37	
SDL	17	
Recitation	5	
Practical	60	
<b>Ayurved Itihas</b>	20	20
		<b>200</b>

**Ayurved Itihas-**

List non lecture Teaching-Learning methods	No of Activities
Group Discussion,	10
Video clips	5
Online Search, Project	
Tutorial	
Quiz, Collage, Puzzle	5
	<b>TOTAL 20</b>

## References/ Resources

### 7. References/ Resources

#### Sanskrit

##### Books

1. संस्कृतपाठ्यपुस्तकम् प्रथमः तथा द्वितीयभागः- Sanskrit for Ayurveda part- I and Part –II Published by CCIM New Delhi
2. आयुर्वेदस्य भाषा-पञ्चभागाः- Ayurvedasya bhaSha part I to part –V samskrita samvardhana prathisthan mumbai
3. लघुसिद्धान्तकौमुदिः - वरदराज - Laghusiddhantakaumudi of bhattojidikshita
4. सिद्धान्तकौमुदि – भट्टोजिदीक्षितः siddhantakaumudi
5. वैद्यकीयसुभाषितसाहित्यम् - Vaidyakiyasubhashitasahityam, भास्कर गोविन्द घाणेकर, चौखम्बा प्रकाशन
6. पन्तन्त्रम् अपरीक्षितकारकम् - Pancatantra aparikshitakarakam 1 to 5 stories
7. शब्दकल्पद्रुमः - Sabdakalpadruma:
8. वाचस्पत्यम्- Vachaspatyam
9. अमरकोशः- Amarakosha
10. सिद्धारूपम् - Siddharupam
11. धातुपाठः- Dhatupatha
12. Sanskrit to English and English to Sanskrit Dictionary – Monier Williams
13. Sanskrit to Hindi and Hindi to Sanskrit Dictionary – Va. Shi. Apte
14. Sanskrit to Regional/ Desirable language dictionaries.
15. Ayurvediya Shabdakosha
16. Encyclopedic dictionary of Ayurveda – Dr. Kanjiv Lochan, Dr. P.S. Byadgi (Chaukhambha Publications)

##### Online Recourses:-

- Crossword Online  
<https://crosswordlabs.com/>
- Readymade Sanskrit Puzzles  
<http://webapps.samskrutam.com/tools/CrosswordPuzzle.aspx>
- Learning Sanskrit - Pronunciation I  
<https://www.sanskrit-trikashaivism.com/en/learning-sanskrit-pronunciation-1-1/456>
- Pronunciation of all Sanskrit letters.....  
[sanskritdocuments.org](http://sanskritdocuments.org)  
[http://sanskritdocuments.org/learning\\_tools/sarvanisutrani/allsutrani.htm](http://sanskritdocuments.org/learning_tools/sarvanisutrani/allsutrani.htm)  
[sanskrit.jnu.ac.in](http://www.taralabalu.org/panini/greetings.htm)  
<http://www.taralabalu.org/panini/greetings.htm>
- Vyakarana –  
<https://sites.google.com/site/samskritavyakaranam/>
- कोशाः / Dictionaries -
- Cologne Digital Sanskrit Lexicon:  
<https://www.sanskritlibrary.org/cologne.html>

#### Ayurved Itihas

##### Reference book

1. Upodghata of Kashyapasamhita (Paragraph of acceptance of Indian medicine) Rajguru Hem Raj Sharma
2. Upodghata of Rasa Yogasagar Vaidya Hariprapanna Sharma
3. Ayurveda Ka Itihas KaviraSuram Chand

4. Ayurveda Sutra Rajvaidya Ram Prasad Sharma
5. History of Indian Medicine (1-3 part) Dr. GirindrNath Mukhopadhyaya
6. A Short history of Aryan Medical Science Bhagwat Singh
7. History of Indian Medicine J. Jolly
8. Hindu Medicine Zimer
9. Classical Doctrine of Indian Medicine Filiyosa
10. Indian Medicine in the classical age AcharyaPriyavrata Sharma
11. Indian Medicine (Osteology) Dr. Harnley
12. Ancient Indian Medicine Dr. P. Kutumbia
13. Madhava Nidana and its Chief Commentaries (Chapters highlighting history) Dr. G.J. Mulenbelt
14. Ayurveda Ka BrihatItihasa Vaidya Atridev Vidyalkara
15. Ayurveda Ka VaigyanikaItihasa Acharya Priyavrata Sharma
16. Ayurveda Ka PramanikaItihasa Prof. Bhagwat Ram Gupta
17. History of Medicine in India Acharya Priyavrata Sharma
18. Vedome Ayurveda Vaidya Ram GopalS hastri
19. Vedomein Ayurveda Dr. Kapil Dev Dwivedi
20. Science and Philosophy of Indian Medicine Dr. K.N. Udupa
21. History of Indian Medicine from Pre-Mauryan to Kushana Period Dr. Jyotirmitra
22. An Appraisal of Ayurvedic Material in Buddhist literature Dr. Jyotirmitra
23. Mahayana Granthon mein nihita Ayurvediya Samagri Dr. RavindraNathTripathi
24. Jain Ayurveda Sahitya Ka Itihasa Dr. Rajendra Prakash Bhatnagar
25. Ayurveda- Prabhashaka Jainacharya Acharya Raj Kumar Jain
26. CharakaChintana Acharya Priyavrata Sharma
27. Vagbhata Vivechana Acharya Priyavrata Sharma
28. Atharvaveda and Ayurveda Dr. Karambelkara
29. Ayurvedic Medicine Past and Present Pt. Shiv Sharma
30. Ancient Scientist Dr. O.P. Jaggi
31. Luminaries of Indian Medicine Dr. K.R. Shrikanta Murthy
32. Ayurveda Ke Itihasa Ka Parichaya Dr. RaviduttaTripathi
33. Ayurveda Ke Pranacharya Ratnakara Shastri
34. Ayurveda Itihasa Parichaya Prof. Banwari Lal Gaur

## Padartha Vijnanam

### FUNDAMENTAL PRINCIPLES OF AYURVEDA AND QUANTUM MECHANICS

#### Subject Code -AyUG-PV

AyUG-PV Course			
<b>Total number of Teaching hours: 230</b>			
<b>Lecture hours (LH) - Theory</b>		<b>90 Hours</b>	<b>90 Hours (LH)</b>
Paper I	45 Hours		
Paper II	45 Hours		
<b>Non-Lecture hours (NLH) – Theory</b>		<b>140 Hours</b>	<b>140 Hours (NLH)</b>
Paper I	70 Hours		
Paper II	70 Hours		
<b>Non-Lecture hours (NLH) - Practical</b>		<b>Hours</b>	

### Padartha Vijnanam Paper I

Sr No	A2 List of Topics AyUG-PV Paper I
<b>1</b>	<p>Ayurveda Nirupana</p> <p>1.1 Lakshana of Ayu, composition of Ayu.</p> <p>1.2 Lakshana of Ayurveda. Swaroopaa and Prayojana of Ayurveda</p> <p>1.3 Lakshana and classification of Siddhanta.</p> <p>1.4 Introduction to Basic Principles of Ayurveda and their significance.</p>
<b>2</b>	<p>Padartha and Darshana Nirupana</p> <p>2.1 Padartha Lakshana, Enumeration and classification of Padartha, Bhava and Abhava Padartha, Padartha according to Acharya Charaka (Karana-Padartha). 2.2 Etymological derivation of the word "Darshana".</p> <p>Classification and general introduction to 9 Schools of Indian Philosophy with an emphasis on: Nyaya, Vaisheshika, Sankhya ,Yoga, Meemamsa and Vedanta darshana.</p> <p>2.3 Ayurveda as unique and independent school of thought (philosophical individuality of Ayurveda).</p> <p>2.4 Principles and examples in contemporary sciences which will enhance understanding concept of Padartha.</p> <p>2.5 Relevance of Study of Darshana and Padartha Vignana in Ayurveda</p>
<b>3.</b>	<p>Dravya vijnaneeyam</p> <p>3.1 Dravya: Lakshana, Classification and Enumeration</p> <p>3.2 Panchabhuta: Various theories regarding the creation (theories of Taittiriyanopanishad, Nyaya-Vaisheshika, Sankhya-Yoga, Sankaracharya, Charaka and Sushruta), Lakshana and qualities of each Mahabhoota.</p> <p>3.3 Kala: Etymological derivation, Lakshana , division / units and significance.</p> <p>3.4 Dik: Lakshana ,division and significance.</p> <p>3.5 Atma: Lakshana, classification, seat, Gunas, Linga according to Charaka, the method / process of knowledge formation (atmanah jnasya pravrittih).</p>

	<p>3.6 Purusha: According to Ayurveda - Ativahikapurusha/ Sukshmasharira/ Rashipurusha/ Chikitsapurusha/ Karmapurusha/ Shaddhatvatmakapurusha.</p> <p>3.7 Manas: Lakshana, Synonyms, Qualities, Objects, Functions, dual nature of mind (ubhayaatmakatvam), as a substratum of diseases, Influence of Panchabhoutika aahara and aushadha (penta-elemental diet) on manas. 3.8 Role of Panmahabhuta and Triguna in Dehaprakriti and Manasaprakriti respectively.</p> <p>3.9 Tamas as the tenth Dravya.</p> <p>3.10 Practical study/Application and Importance of each Kaarana dravya in Ayurveda.</p> <p>3.11 Principles and examples in contemporary sciences which will enhance understanding concept of Kaarana dravya.</p>
4.	<p>Guna vijnaneeyam</p> <p>4.1 Etymological Derivation, Classification and Enumeration according to various Darshana and Charaka,</p> <p>4.2 Lakshana and Classification of Sartha Guna, Gurvadiguna, Paradiguna, Adhyatmaguna (41 Guna)</p> <p>4.3 Gunapradhanyata (Importance of Guna)</p> <p>4.4 Practical / clinical application of each Guna in Ayurveda</p> <p>4.5 Principles and examples in contemporary sciences which will enhance understanding concept of Guna.</p>
5.	<p>Karma vijnaneeyam</p> <p>5.1 – Introduction of concept of Karma According to Darshana and Ayurveda</p> <p>– Classification of Karma</p> <p>5.3 - Practical application of karma</p> <p>5.4 - Principles and examples in contemporary sciences which will enhance understanding concept</p>
6.	<p>Samanya vijnaneeyam</p> <p>6.1 – Introduction of concept of Saamaanya According to Darshana and Ayurveda.</p> <p>– Classification of Saamaanya</p> <p>6.3 - Practical application of saamaanya</p> <p>6.4 - Principle and examples in contemporary sciences which will enhance understanding the concept of Saamanya.</p>
7.	<p>Vishesha vijnaneeyam</p> <p>7.1 – Introduction of concept of Vishesha according to Darshana and Ayurveda</p> <p>7.2 - Classification of Vishesha</p> <p>7.3 - Practical Application of vishesha</p> <p>7.4- Principles and examples in contemporary sciences which will enhance understanding the concept of Vishesha</p>
8.	<p>Samavaya vijnaneeyam</p> <p>8.1 – Introduction of concept of Samavaaya According to Darshana and Ayurveda.</p> <p>8.2 – Practical application of Samavaaya</p> <p>8.3- Principles and examples in contemporary sciences which will enhance understanding the concept of Samavaya</p>
9	<p>Abhava vijnaneeyam</p> <p>9.1 – Introduction of concept of Abhaava According to Darshana and Ayurveda.</p>

<p>9.2 – Classification of Abhaava.                  9.3 – Practical application of Abhaava                  9.4- Principles and examples in contemporary sciences which will enhance understanding the concept of Abhava.</p>
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<b>A2 List of Topics – AyUG-PV</b>	
<b>1</b>	<p><b>Pariksha</b>                      1.1. Definition, Significance, Necessity and Use of Pariksha.                      1.2. Definition of Prama, Aprama, Prameya, Pramata, Pramana.                      1.3. Significance and importance of Pramana, Enumeration of Pramana according to different schools of Philosophy.                      1.4. Four types of methods for examination in Ayurveda (Chaturvidha-Parikshavidhi), Pramana in Ayurveda.                      1.5. Subsudation of different Pramanas under three Pariksha.                      1.6. Practical application of methods of examination (Parikshavidhi) in Nidan and Chikitsa.</p>
<b>2</b>	<p><b>2. Aptopadesha Pariksha/Pramana</b>                      2.1. Lakshana of Aptopadesha, Lakshana of Apta.                      2.2. Lakshana of Shabda, and its types.                      2.3. Shabdavritti-Abhidha, Lakshana, Vyanjana and Tatparyakhya. Shaktigrahahetu.                      2.4. Vaakya: Characteristics, Vaakyarthajnanahetu- Aakanksha, Yogyata, Sannidhi.                      2.5. Importance of Aptopadesha in maintaining Health, Prevention of Diseases, Diagnostics, Therapeutics and Research.</p>
<b>3.</b>	<p><b>3. Pratyaksha Pariksha/Pramana</b>                      3.1. Lakshana of Pratyaksha, types of Pratyaksha- Nirvikalpaka- Savikalpaka with description, description of Laukika and Alaukika types and their further classification.                      3.2. Indriya-prapyakaritvam, six types of Sannikarsha.                      3.3. Indriyanam lakshanam, classification and enumeration of Indriya. Description of Panchapanchaka, Penta-elemental nature of Indriya (<i>Panchabhautikatwa</i> of Indriya) and similarity in sources (<i>Tulyayonitva</i>) of Indriya.                      3.4. Trayodasha Karana, dominance of Antahkarana.                      3.5. Hindrances in direct perception (<i>pratyakshaanupalabdihikaarana</i>), enhancement of direct perception (Pratyaksha) by various instruments/ equipments, necessity of other Pramanas in addition to Pratyaksha.                      3.6. Practical study/ application of Pratyaksha in Sharir, Nidan (Diagnosis), Chikitsa (Treatment) and Anusandhan (Research).</p>
<b>4.</b>	<p><b>4. Anumanapariksha/Pramana</b>                      4.1. Lakshana of Anumana. Introduction of Anumiti, Paramarsha, Vyapti, Hetu, Sadhya, Paksha, Drishtanta. Types of Anumana mentioned by Charaka and Nyayadarshana.                      4.2. Characteristics and types of Vyapti.                      4.3. Lakshana and types of Hetu, Description of Ahetu and Hetwabhasa.                      4.4. Characteristics and significance of Tarka (logic).                      4.5. Practical study/ application of Anumanapramana in Sharir, Nidan, Chikitsa and Anusandhan.</p>
<b>5.</b>	<p><b>5. Yuktipariksha/Pramana</b>                      5.1. Lakshana and description.</p>

	5.2. Importance in Ayurveda. 5.3. Practical study and utility in diagnostics, therapeutics and research.
<b>6.</b>	<b>6. UpamanaPramana</b> 6.1. Lakshana. 6.2. Application in Sharir, diagnostics, therapeutics and research.
<b>7.</b>	<b>Karya- Karana Siddhanta</b> 7.1. Lakshana of Karya and Kaarana. Types of Kaarana. 7.2. Significance of Karya and Kaarana in Ayurveda. 7.3. Different opinions regarding the manifestation of Karya from Kaarana: Satkaryavada, Parinamavada, Vivartavada, Asatkaryavada, Arambhavada, Paramanuvada, Kshanabhanguravada, Pilupaka, Pitharpaka, Anekantavada, Swabhavavada, Swabhavoparamavada. Importance/ Utility of each of these in Ayurveda 7.4 Study of cause effect relationship, causality, causation in Contemporary sciences

**List of Practical****Course AyUG-PV\_: Practical List****Marks: 100****Hours:- 45 (included in non Lecture hours)**

SN	Name of Topic/ Name of Practical	Activity / Practical
P1	Ayurved Nirupan	Ayurved Perception identification: Ask the meaning of Ayurveda to your parents, friends and family members (min 10) and write it, give your opinion on it.  Introduction to communication skills. Conduct of survey.
P2	Darshana and Padartha	<ul style="list-style-type: none"> <li>Darshan concept development: Find and write names of different philosophies?</li> <li>Discussions: meanings of philosophy, darshana, spirituality, religion. Are they same or different? Write in Activity Book.</li> </ul>
P3	Hitayu/ Sukhayu lakshanas	• Identification of characters of Hitayu, & Sukhayu in Healthy individuals.
P4	Dravya	<ol style="list-style-type: none"> <li><b>1. Identification of Guna and Karma.</b> Make a list of 10 dravyas surrounding you and identify Guna and Karma in it.</li> <li><b>2. Panchbhautik nature identification:</b> Demonstrate the Panchamahabhuta in any five ahara dravya and five sharira dravya/ avayava with a neat labeled diagramme. (ex-cell, blood, vata, pitta, kapha etc).</li> <li><b>3. Determination of Directions:</b> Identify the directions in and enlist the content in each direction in your campus.</li> <li><b>4. Conceptualize Time :</b> Discussion and understanding of Kala as per Ayurved and contemporary sciences.</li> </ol>

		<p><b>5. Categorization</b> of Aushadhi dravya by dominance of Mahabhoot e.g. Parthiv / Jaleeya/ Agney/ Vayaveey/ Akasheey dravya with reasons.</p> <p><b>6. Early Clinical Exposure(ECE):</b> Visit the OPD, find the diseases common for different age groups ( balyavastha/ tarunyavastha/ vrudhdhavastha)</p>
P5	Guna	<p><b>Identification:</b></p> <p><b>Sartha Guna :</b> Identify concept of Shabda, Sparsha, Rupa, Rasa, Gandha in Dravya.</p> <p><b>Application and demonstration</b> find the different therapies based on 5 Sartha Gunas. e.g. Gandha. Shabda, Sparsha.</p> <p>Observe /Experience/ Study / Read book or article <b>present</b> on (any one)</p> <p>Aromatherapy- Gandha Chikitsa. Music therapy/ Mamtra Chikitsa - Shabda guna.</p> <p>Sparsha- Touch therapy.</p> <p><b>Gurvadi Guna:</b></p> <p>Identify guna in any five ahara dravya : different vargas. in Sharir dravya: dosha, dhatu mala.</p> <p><b>Comparison</b> Gurvadi gunas and corelate with concepts learned in Physics, Chemistry and Biology.</p> <p>Observation(<b>survey</b>) of the effects of Seasons on Gurvadi gunas in body, nature etc.</p> <p><b>Paradi Guna</b> and their application in five examples.</p> <p><b>Atma Guna identification:</b> Making or Framing their real life situations related to Atma Guna(sukha, dukkha etc)</p>
P6	Karma	<p><b>Conceptualization</b> Karma, its application in branch of Ashtanga Ayurveda.( panchakarma/ Shastrakarma etc</p> <p><b>Illustration:</b> Make a collage of pictures/ photos depicting five types of karma and their similarity with concepts learned in Physics, Chemistry etc.</p>
P7	Pratyaksha Praman	<p><b>Observation:</b> Note down the factors from Prakruti analysis which you can understand through pratyaksh ( like- colour, dry skin)</p> <p><b>Identification:</b> Find few identification marks for identification of herbs/ minerals which need Pratyaksha.</p>



		<b>ECE:</b> Pramans in examination of patient and Diagnosis of disease.
		Identifies the gunas which can be perceived by one sense (ekendriya) organ and more than one sense organ (Dwiendriya etc). Demonstrate with examples of Shabda,(snigdha/ ruksha etc) Sparsha (snigdha/ ruksha etc), Rupa, Rasa(taste threshold video), Gandha. (5 examples) .
P8	Pratyaksha Praman Limitations	<b>Observation:</b> Find out how one can overcome limitations of Pratyaksha by advances in equipment. (microscope, telescope etc) <b>Justification</b> of use of various equipment in examination of patient and Diagnosis of disease. (X ray, USG etc)
P9	Anuman Praman	<b>Application in Real life situation</b> Write 3 examples of Vyapti (associations)in real life. Find and explain 5 examples of Anumana pramana as per types. Write 3 examples of panchavayava vakya. Correlate it with practicals that you have conducted.  Examples of Hetvabhas.(Any three) Study use of inference in various sciences.
P10	Samanya Vishesh Siddhant	<b>Identification:</b> Visit vanaushadhi udyan of your college. Find samanyatva and visheshatva among plants. <b>Illustration :</b> Make a chart of food articles and activities to illustrate the relationship of samanya/vishesha with dosha-dhatu-malas. <b>Application:</b> Make a list/ collection of seasonal vegetables and fruits which are Samanya/Vishesha with the dosha.(five examples)
P11	Samvay	<b>Conceptualization</b> Mention five real life examples of Nitya and anitya sambandha.
P12	Abhav	<b>Application:</b> Write five real life experiences of pragabhava, pradhwasabhava, atyantabhava and anyonyabhav.
P13	Upman Praman	<b>Illustration :</b> Upamana in practical life or with your prior learning. (Examples of upamana from Ashtang Hridaya and Charak samhita)and prior learning (Examples in Physics, chemistry etc)
P14	Yukti Praman	<b>Conceptualization:</b> How various factors influence the process of the decision making?  <b>Application :</b> Write 5 examples of Yukti in practical life or with your prior learning.  <b>ECE:</b> Role of Yukti in Sharir, Nidan, Chikitsa and Anusandhan.

P15	Satkaryavad and other vadas	<p><b>Justification</b> : Parinama vada: Describe 3 real life or with your prior learning examples (Physics, Chemistry etc).</p> <p>Justification of Satkarya vada.: Describe 3 real life or with your prior learning examples.</p> <p>Swabhavoparama vada : Describe 3 real life or with your prior learning examples.</p> <p>Pakajotpatti siddhanta.: Write 3 examples of real life or with your prior learning. Justification of Arambhavada Describe 3 real life or with your prior learning examples</p>
P16	Cause and effect theory	<p><b>Illustration:</b> Karya Karan Bhav: Write Samavayi, asamavayi and Nimitta Karana of a karya in real life examples (5 examples). Examples learned in Physics, Chemistry, Biology.</p> <p><b>Search</b> Find out use of cause effect theory in other sciences.</p> <p><b>Schematic representation</b> of cause effect in any examples.</p>
		<p><b>Application:</b> Assess the 10 factors of Charakokta Karyakarana bhava regarding any task consider the task as karya Remember and write theories of evolution you learned within and other than syllabus.</p>
A1	<b>Other Activities in Journal.</b>	<ol style="list-style-type: none"> <li><b>Oral presentation:</b> on allotted topic, PPT slides be made and Copy of slides be pasted in activity book</li> <li><b>Quiz:</b> Participation of all students in Quiz on some topic of Padartha vijnana.</li> <li><b>Recitation:</b> Important shloka of padartha vijnana recitation everyday or alternate days by students and written in diary.</li> <li>Each student will do Pick and speak on topics of Padartha Vijnana.</li> <li>e charts / animations etc.</li> </ol>

## AyUG-PV- Non Lecture Activities Course -140

	List non lecture Teaching-Learning methods *	No of Activities
1	Group Discussion	20
2	<b>Practicals And Demonstrations</b>	45
3	Activity Based Learning	10
4	Problem Based Learning	10
5	Enquiry Based Learning	8
6	Case Based Learning	6
7	Game Based Learning	8
8	Flipped Classrooms	6
9	Debate	8
10	Seminars	6
11	Tutorials	5
12	Role Play	5
13	Self Directed Learning	3
		140

**AyUG-PV -Distribution of Practical Exam**

Practical – (Practical 100 +Viva 60+Elective 10+ IA 30) =(Total 200 Marks)

SN	Heads	Marks
<b>1</b>	Practical (Total Marks 100)	<b>100</b>
<b>a.</b>	Spotting ( 4 Spots) Problem based on Principles in PV. Topics 1. Pratyaksha praman/Pratyaksha Badhakar Bhav 2. Vada (Any one) 3. Abhav/Samavay 4. Upaman/Yukti	20
<b>b.</b>	Journal of Activity book/ Projects. (Viva on journal and communication skill)	20
<b>c.</b>	Practical I (10 Marks Each) 1. Identify panchamahabhoot dominance in the given dravya 2. Identify Samanya- Vishesh in the given dravyas 3. Identify the Gunas in the given dravyas (Use different dravys for different students.)	30
<b>d.</b>	Practical II (Problem based questiones/ Situations)(10 Marks Each)(Any three) 1. Identify and explain the Karya Karan with types in given problem 2. Frame and Write Panchavayav vakya for the given anumana. 3. Identify Vyapti, Paksh, Sadhya, Hetu, Pakshadharmata, Sapaksha, Vipaksha in the give example. 4. Identify and explain Hetvabhas in given example. 5. Identify the vada applicable in given example.(any one vada.) 6. Identify Upama, Sajna- sajni sambhandha in given example.	30
<b>2</b>	<b>Viva Voce</b> Recitation of Shloka: 10 marks (sutras in Tarka sangraha, Samhitas, other) Questions on Darshan 10 marks Question on Dravya/ Guna/ Karma. 10 marks Question on Samany/vishesh/samavaya/ Abhav 10 Marks Question on one Praman 10 Marks Question on Karya karan bhav 10 Marks.	<b>60</b>
<b>3</b>	Internal Assessment	<b>30</b>
<b>4</b>	Electives	<b>10</b>
	Total	<b>200</b>

**AyUG-PV -References /Recourses**

**PadarthaVignana books**

1. Padarthavigyan
2. AyurvediyaPadarthaVigyana
3. Ayurved Darshana
4. PadarthaVigyana
5. PadarthaVigyana
6. SankhyatantwaKaumadi
7. Psycho Pathology in Indian Medicine
8. CharakEvumSushrutkeDarshanik Vishay
9. AyurvediyaPadarthaVigyana
10. PadarthaVigyana
11. Post graduate text book of Samhitha&Sidhanta
12. Padartha Vigyana
13. AyurvediyaPadarthaVigyana
14. AyurvediyaPadartha Vignan Parichaya
15. AyurvediyaPadartha Darshan
16. Scientific Exposition of Ayurveda
17. Padarthavignana and Ayurveda itihasa
18. Essentials of padarthavignana
19. Padarthavignanevam Ayurveda Itihas
20. AyurvediyaPadarthavignana
21. AyurvediyaMoulikaSiddhanta

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Pandit Shivhare  
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Dr C R Agnives  
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Dr C R Agnives  
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## Kriyasharir syllabus

Subject code-AyUG KS

<b>AyUG KS</b>			
<b>Total number of Teaching hours: 400</b>			
<b>Lecture hours (LH) - Theory</b>		<b>150 Hours</b>	<b>150 Hours (LH)</b>
Paper I	75 Hours		
Paper II	75 Hours		
<b>Non-Lecture hours (NLH) – Theory</b>		<b>50 Hours</b>	<b>250 Hours (NLH)</b>
Paper I	25 Hours		
Paper II	25 Hours		
<b>Non-Lecture hours (NLH) - Practical</b>		<b>200 Hours</b>	

### AyUG-KS content of course

SrNo	List of Topics AyUG-KS - Paper I
<b>PART-A (Marks-60)</b>	
1	<b>Sharir:</b> Definition and synonyms of term Kriya, Sharir & Shaarir. Description of Sharir Dosha and Manasa Dosha. Mutual relationship between Triguna-Tridosha & Panchmahabhuta.
2	<b>Basic principles of Ayurveda:</b> Dosha dhatu mala mulam hi shariram. Description of basics of Srotas
3.	<b>Tridosha:</b> General description of Tridosha. Inter relationship between Ritu-Dosha-Rasa- Guna. Biological rhythms of Tridosha on the basis of day-night-age-season and food intake. Role of Dosha in the formation of Prakriti of an individual and in maintaining of health. Prakrita and Vaikrita Dosha.
4.	<b>Vata Dosha:</b> Vyutpatti (derivation), Nirukti (etymology) of the term Vata, general locations, general properties and general functions of Vata, five types of Vata (Prana, Udana, Samana, Vyana, Apana) with their specific locations, specific properties, and specific functions.
5.	<b>Pitta Dosha:</b> Vyutpatti, Nirukti of the term Pitta, general locations, general properties and general functions of Pitta, five types of Pitta (Pachaka, Ranjaka, Alochaka, Bhrajaka, Sadhaka) with their specific locations, specific properties, and specific functions. Similarities and differences between Agni and Pitta.
6.	<b>Kapha Dosha:</b> Vyutpatti, Nirukti of the term Kapha, general locations, general properties and general functions of Kapha, five types of Kapha (Bodhaka, Avalambaka, Kledaka, Tarpaka, Śleshaka) with their specific locations, specific properties, and specific functions.
7.	<b>Dosha Vriddhi-Kshaya:</b> Etiological factors responsible for Dosha Vriddhi, Dosha Kshaya and their manifestations.
8.	<b>Kriyakala:</b> Concept of Kriyakala, applied physiology of diseases produced due the vitiation of vata, pitta and kapha.

9	<p><b>Prakriti:</b>  <b>Deha- Prakriti:</b> Vyutpatti, Nirukti, various definitions and synonyms for the term “Prakriti”. Intra-uterine and extra- uterine factors influencing Deha-Prakriti, classification and characteristic features of each kind of Deha-Prakriti.  <b>Manasa- Prakriti:</b> Introduction and types of Manasa- Prakriti</p>
10.	<p><b>Ahara:</b> Definition, classification and significance of Ahara,  Ahara-vidhi-vidhana, Ashta Aharavidhi Viseshayatana, Ahara Parinamkar Bhava.</p>
11.	<p><b>Agni:</b> Definition and importance, synonyms, classification, location, properties and functions of Agni and functions of Jatharagni, Bhutagni, and Dhatvagni.</p>
12.	<p><b>Aharapaka (Process of digestion):</b> Description of Annavaha Srotas and their Mula. Description of Avasthapaka (Madhura, Amla and Katu). Description of Nishthapaka (Vipaka) and its classification. Role of Grahani &amp; Pittadhara Kala. Separation of Sara and Kitta. Absorption of Sara. Genesis of Vata-Pitta-Kapha during Aharapaka process. Definition of the term Koshtha. Classification of Koshtha and the characteristics of each type of Koshtha.</p>
<b>PART-B (Marks-40)</b>	
1	<p><b>Physiology Homeostasis:</b> Definition and mechanisms of maintenance of homeostasis. Cell physiology. Membrane physiology. Transportation of various substances across cell membrane. Resting membrane potential and action potential. Acid-base balance, water and electrolyte balance. Study of basic components of food.</p>
2	<p><b>Physiology of Respiratory system:</b> functional anatomy of respiratory system. Definition of ventilation, mechanism of respiration, exchange and transport of gases, neural and chemical control of respiration, artificial respiration, asphyxia, hypoxia. Introduction to Pulmonary Function Tests.</p>
3	<p><b>Physiology of Gastrointestinal system:</b> Functional anatomy of gastro-intestinal tract, mechanism of secretion and composition of different digestive juices. Functions of salivary glands, stomach, liver, pancreas, small intestine and large intestine in the process of digestion and absorption. Movements of the gut (deglutition, peristalsis, defecation) and their control. Enteric nervous system. Digestion and metabolism of proteins, fats and carbohydrates. Vitamins &amp; Minerals- sources, daily requirement, functions, manifestations of hypo and hypervitaminosis.</p>
4	<p><b>Physiology of Nervous System:</b> General introduction to nervous system, neurons, mechanism of propagation of nerve impulse, physiology of CNS, PNS, ANS; physiology of sensory and motor nervous system, Functions of different parts of brain, intelligence, memory, learning and motivation. Physiology of sleep and dreams, EEG. Physiology of speech and articulation. Physiology of temperature regulation.</p>
5	<p><b>Physiology of Endocrine glands:</b> General introduction to endocrine system, classification and characteristics of hormones, physiology of all endocrine glands, their functions and their effects.</p>

**PAPER II**

<b>A2 List of Topics Paper II</b>	
<b>PART-A (Marks-60)</b>	
1	<p><b>Dhatu:</b> Etymology, derivation, definition, general introduction of term Dhatu, different theories related to Dhatuposhana (Dhatuposhana Nyaya)</p>

2	<b>Rasa Dhatu:</b> Etymology, derivation, location, properties, functions and Praman of Rasa-dhatu. Physiology of RasavahaSrotas, Formation of Rasa Dhatu from Aahara Rasa, circulation of Rasa (Rasa-Samvahana), role of Vyana Vayu and Samana Vayu in Rasa Samvahana. Description of functioning of Hridaya. Ashtavidha Sara, characteristics of Tvakasara Purusha, conceptual study of Aashraya-Aashrayi Bhaava and its relation to Rasa and Kapha. Manifestations of kshaya and Vriddhi of Rasa
3.	<b>Rakta Dhatu:</b> Etymology, derivation, synonyms, location, properties, functions and Praman of Rakta Dhatu. Panchabhautikatva of Rakta Dhatu, physiology of Raktavaha Srotas, formation of Raktadhatu, Ranjana of Rasa by RanjakaPitta, features of Shuddha Rakta, specific functions of Rakta, characteristics of Raktasara Purusha, manifestations of Kshayaand Vriddhi of Raktadhatu, mutual interdependence of Rakta and Pitta.
4.	<b>Mamsa Dhatu:</b> Etymology, derivation, synonyms, location, properties and functions of Mamsa Dhatu, physiology of Mamsavaha Srotas, formation of Mamsa Dhatu, characteristics of Mamsasara Purusha, manifestations of Kshaya and Vriddhi of Mamsa Dhatu, Concept of Peshi.
5.	<b>Meda Dhatu:</b> Etymology, derivation, location, properties,functions and Praman of Meda Dhatu, physiology of Medovaha Srotas, formation of Medo Dhatu, characteristics ofMedasara Purusha and manifestations of Kshaya and Vriddhi of Meda.
6.	<b>Asthi Dhatu:</b> Etymology, derivation, synonyms, location, properties, functions of Asthi Dhatu. Number of Asthi. Physiology of Asthivaha Srotas and formation of Asthi Dhatu,characteristics of Asthisara Purusha, mutual interdependence of Vata and Asthi Dhatu, manifestations of Kshaya and Vriddhi of Asthi Dhatu.
7.	<b>Majja Dhatu :</b> Etymology, derivation, types, location, properties, functions and Praman of Majjaa Dhatu, physiology of Majjavaha Srotas, formation of Majja Dhatu, characteristics of Majja Sara Purusha, relation of Kapha, Pitta, Rakta and Majja, manifestations of Kshaya and Vriddhi of Majja Dhatu.
8.	<b>Shukra Dhatu:</b> Etymology, derivation, location, properties, functions and Praman of Shukra Dhatu, physiology of Shukraravaha Srotas and formation of Shukra Dhatu. Features of Shuddha Shukra, characteristics of Shukra-Sara Purusha, manifestations of Kshaya and Vriddhi of Shukra Dhatu.
9	<b>Concept of Ashraya-Ashrayi bhava</b> i.e. inter-relationship among Dosha, Dhatu Mala and Srotas. Applied physiology of diseases asserting saptadhatu enlisted under dhatu pradoshaj vikar.
10.	<b>Ojas:</b> Etymological derivation, definition, formation, location, properties, Praman, classification and functions of Ojas. Description of Vyadhikshamatva. Bala Vriddhikara Bhava. Classification of Bala. Etiological factors and manifestations of Ojavisrams, Vyapat and Kshaya.
11.	<b>Upadhatu:</b> General introduction, etymological derivation and definition of the term Upadhatu. Formation, nourishment, properties, location and functions of each Upadhatu. <b>Stanya:</b> Characteristic features and methods of assessing Shuddha and Dushita Stanya, manifestations of Vriddhi and Kshaya of Stanya. <b>Artava:</b> Characteristic features of Shuddha and Dushita Artava. Differences between Raja and Artava, physiology of Artavavaha Srotas. <b>Tvak:</b> classification, thickness of layer and functions.
12.	<b>Mala:</b> Etymological derivation and definition of the term Mala. Aharamala: Enumeration and description of the process of formation of Aharamala. Purisha: Etymological derivation, definition, formation, properties, quantity and functions of Purisha. Physiology of Purishavaha Srotas, manifestations of Vriddhi and Kshhaya of Purisha. Mutra: Etymological derivation, definition, formation, properties, quantity and functions of Mutra.

	Physiology of Mutravaha Srotas, physiology of urine formation in Ayurveda, manifestations of Vrid-dhi and Kshhaya of Mutra. Sveda: Etymological derivation, definition, formation and functions of Sveda. Manifestations of Vrid-dhi and Kshhaya of Sveda. Discription of Svedvaha Srotas Dhatumala: Brief description of each type of Dhatumala.
13	<b>Indriya vidnyan:</b> Physiological description of Panchagyaanendriya and physiology of perception of Shabda, Sparsha, Rupa, Rasa and Gandha. Physiological description of Karmendriya.
14	<b>Manas:</b> Properties, functions and objects of Manas. Physiology of Manovaha Srotas.
15	<b>Atma:</b> Properties of Atma. difference between Paramatma and Jivatma; Characteristic features of existence of Atma in living body.
16	<b>Nidra &amp; Swapna:</b> Nidrotpatti, types of Nidra, physiological and clinical significance of Nidra; Svap-notpatti and types of Svapna.
<b>PART-B (Marks-40)</b>	
1	<b>Haemopoetic system:</b> composition, functions of blood and blood cells, Haemopoiesis (stages and development of RBCs, and WBCs and platelets), composition and functions of bone marrow, struc-ture, types and functions of haemoglobin, mechanism of blood clotting, anticoagulants, physiological basis of blood groups, plasma proteins, introduction to anaemia and jaundice.
2	<b>Immunity:</b> classification of immunity: Innate, acquired and artificial. Different mechanisms in-volved in immunity: Humoral (B-cell mediated) and T-Cell mediated immunity. Hypersensitivity.
3	<b>Physiology of cardio-vascular system:</b> Functional anatomy of cardiovascular system. Cardiac cy-cle. Heart sounds. Regulation of cardiac output and venous return. Physiologicalbasis of ECG. Heart-rate and its regulation. Arterial pulse. Systemic arterial blood pressure and its control.
4	<b>Muscle physiology:</b> comparison of physiology of skeletal muscles, cardiac muscles and smooth mus-cles. Physiology of muscle contraction.
5	<b>Adipose tissue:</b> lipoproteins like VLDL, LDL and HDL triglycerides. Functions of skin, sweat glands and sebaceous glands.
6	<b>Physiology of male and female reproductive systems:</b> Description of ovulation, spermatogenesis, oogenesis, menstrual cycle.
7	<b>Physiology of Excretion:</b> functional anatomy of urinary tract, functions of kidney. Mechanism of for-mation of urine, control of micturition. Formation of faeces and mechanism of defecation.
8	<b>Special Senses, Sleep and Dreams:</b> Physiology of special senses. physiology of sleep and dreams

**AyUG-KS List of practicals-**

	List of Topics
1	Dhatu sararata parikshana
2.	Demonstrate laboratory equipment (spotting)
3.	Demonstrate blood collection
4.	Estimate haemoglobin
5.	Estimate bleeding time & clotting time



6.	Estimate blood grouping
7.	Prakriti parikshana
8.	Dosha vriddhi kshaya parikshana
9.	Dhatu vriddhi kshaya parikshana
10.	Nadi parikshana
11.	Pulse examination
12.	WBC estimation
13.	RBC estimation
14.	DLC estimation
15.	Measurement of Blood pressure
16.	Perform the procedure Inspection of respiratory system
17.	Perform the procedure Inspection of heart sound
18.	Agni parikshana
19.	Koshtha parikshana
20.	Urine examination
21.	Demonstrate ESR, PCV
22.	Observe the procedure of ECG
23.	Perform the procedure of examining the cranial nerves and reflexes

**AyUG-KS Non-Lecture Activities - Total Non-Lecture hours-250**

<b>Theory Non Lecture 50 (Paper I -25 &amp; Paper II-25)</b>	
1.	Assignment - homework based
2.	Brainstorming
3.	Buzz group
4.	Case based learning
5.	Confusion technique
6.	Debate
7.	Demonstration
8.	Direct observation skill (DOPS)
9.	Flipped classroom
10.	Group Discussion
11.	Jigsaw or puzzle
12.	Mnemonics
13.	Model based learning
14.	Online teaching aids
15.	Panel discussion
16.	Problem based learning
17.	Real-life experience
18.	Recitation
19.	Role Play
20.	Self directed learning
21.	Seminar by students

22.	Simulated condition
23.	Skill assessment
24.	Symposium
25.	Team project work
26.	Think-Pair-Share
27.	Tutorial
28.	Video show
<b>Practical Non- Lecture 100 (200 hours)</b>	
1.	Ayurveda Practicals – 50
2.	Modern Practicals – 30
3.	Activity based learning – 20
	Communication Skills, Small project / Experiment designing, Task-based learning, Teamwork based learning, Team project, Problem Based Learning (PBL)/(CBL), Group Discussion, Workshops, Field visits, Preparation of charts 1, models and computerized simulation models etc. , Seminar presentations by students

### References / Resources

- Ayurvediya Kriyasharir - Ranjit Rai Desai
- Kayachikitsa Parichaya - C. Dwarikanath
- Prakrit Agni Vigyan - C. Dwarikanath
- Sharir Kriya Vigyan - Shiv Charan Dhyani
- Abhinava Sharir Kriya Vigyana - Acharya Priyavrata Sharma
- Dosha Dhatu Mala Vigyana - Shankar Gangadhar Vaidya
- Prakrita Dosha Vigyana - Acharya Niranjana Dev
- Tridosha Vigyana - Shri Upendranath Das
- Sharira Tatva Darshana - Hirlekar Shastri
- Prakrita Agni Vigyana - Niranjana Dev
- Deha Dhatvagni Vigyana - Vd. Pt. Haridatt Shastri
- Sharir Kriya Vigyana (Part 1-2) - Acharya Purnchandra Jain
- Abhinava Sharir Kriya Vigyana - Dr. Shiv Kumar Gaur
- Pragyogik Kriya Sharir - Acharya P.C. Jain
- Kaya Chikitsa- Ramraksha Pathak
- Kaya Chikitsa Parichaya - Dr. C. Dwarkanath
- Concept of Agni - Vd. Bhagwan Das
- Purush Vichaya - Acharya V.J. Thakar
- Kriya Sharir - Prof. Yogesh Chandra Mishra
- Sharira Kriya Vijnana (Part 1 and 2) – Nandini Dhargalkar
- Sharir Kriya Vigyana - Prof. Jayaram Yadav & Dr. Sunil Verma.
- Kriya Sharir mcq – Dr. Kiran Tawalare
- Basic Principles of Kriya-Sharir (A treatise on Ayurvedic Physiology) - Dr. Srikant Kumar Panda
- Sharir Kriya – Part I & Part II – Dr. Ranade, Dr. Deshpande & Dr. Chobhe
- Human Physiology in Ayurveda - Dr Kishor Patwardhan
- Textbook of Physiology - Gyton & Hall
- Review of medical physiology – William Ganong
- Essentials of Medical Physiology - Sembulingam, K.

- Concise Medical Physiology - Chaudhari, Sujit. K.
- Fundamental of Anatomy & Physiology - Martini
- Principals of Anatomy & Physiology - Tortora & Grabowski
- Human Physiology - Richards, Pocock
- Samson Wrights Applied Physiology, Keele, Neil, joels
- Ayurveda Kriya Sharira - Yogesh Chandra Mishra
- Textbook of Medical Physiology - Indu Khurana
- Tridosha Theory - Subrahmanya Shastri
- Dosha Dhatu Mala vigyan – S. G. Vartak
- Purush Vichaya – Jayanad Thakar
- All Samhitas.
- Ayurvediya Shabda kosha.
- Vachaspatyam
- Shabdakalpadrum
- Monir Williams Sanskrit dictionary.

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**Rachana Sharir (Human Anatomy)****Subject code- AyUG-RS**

<b>AyUG-RS</b>			
<b>Total number of Teaching hours: 500</b>			
<b>Lecture hours (LH) - Theory</b>		<b>180 Hours</b>	<b>180 Hours (LH)</b>
Paper I	90 Hours		
Paper II	90 Hours		
<b>Non-Lecture hours (NLH) – Theory</b>		<b>80 Hours</b>	<b>320 Hours (NLH)</b>
Paper I	40 Hours		
Paper II	40 Hours		
<b>Non-Lecture hours (NLH) - Practical</b>		<b>240 Hours</b>	

**AyUG-RS -Content of course**

SN	A2 List of Topics AyUG-RS
1	<b>Shariropkramaniya Shaarira</b> <ul style="list-style-type: none"> <li>• Sharir and Shaarir vyakhya (definitions of sharira and shaarira)</li> <li>• Shadangatvam (Six regions of the body)</li> <li>• Anga Pratyanga vibhaga (subdivisions)</li> <li>• Sharir shastra vibhag</li> <li>• Sharir gyan prayojan and its description in contemporary science with its clinical importance</li> </ul>
2	<b>Paribhasha Shaarira</b> <ul style="list-style-type: none"> <li>• Kurcha, Kandara, Jala, Asthisamghata, Seemnta, Seevani, Rajju, and lasika</li> <li>• Terminologies related shadang sharir</li> </ul>
3.	<b>Garbha Shaarira</b> <ul style="list-style-type: none"> <li>• Garbha Vyakhya (Definition of Garbha)</li> <li>• Concept of Shukra and Artava</li> <li>• Garbhavkranti. Masanumasik grabhavruddhi</li> <li>• Role of panchamahabhoot in Garbhavruddhi</li> <li>• Concept of Beeja, Beejabhaga, Beejabhagavayava</li> <li>• Garbhposhana</li> <li>• Apari nirmitti, Garbhanabhinadi</li> <li>• Garbha Angapratyanga utpatti according to different Acharya</li> <li>• Garbha Vikruti</li> </ul>
4.	<b>Asthi Shaarira</b> Enumeration of Asthi, Types, asthi swaroopa, with its applied aspect
5.	<b>Sandhi Shaarira</b> <ul style="list-style-type: none"> <li>• Description of Sandhi and its enumeration,</li> <li>• Types of Sandhi with its clinical importance</li> <li>• Introduction of diseases of Sandhi explained in Ayurveda</li> </ul>
6.	<b>Snayu sharir</b> Concept of Snayu and its clinical importance

7.	<b>Peshi Shaarira</b> <ul style="list-style-type: none"> <li>• Description of Peshi,</li> <li>• Utpatti, types, Swaroop, function with its importance</li> </ul>
8.	<b>Kesha, Danta, Nakha Sharir</b> <ul style="list-style-type: none"> <li>• Description of Panchbhautik swaroop and its applied value</li> <li>• Explanation of its swabhava (Pitruja) and its applied value</li> <li>• Description of Prakrita (normal) and Vikruta(abnormal) Swaroop (appearance) of kesha, danta, nakha in concern with disease</li> <li>• Importance of examination of kesha, danta, nakha as diagnostic tool</li> </ul>
9	<b>Embryology</b> <ul style="list-style-type: none"> <li>• Definitions and branches of embryology.</li> <li>• Embryo and Fetus. Sperm and Ovum, Fertilization, Cleavage.</li> <li>• Germ layers formation and their derivatives.</li> <li>• Laws of heredity, Sex determination and differentiation, Month-wise development of embryo.</li> <li>• Fetal circulation, Placenta formation, Umbilical cord formation</li> </ul>
10	<b>Osteology</b> <ul style="list-style-type: none"> <li>• Bone: structure, types and ossification.</li> <li>• Description of each bone with clinical anatomy</li> </ul>
11	<b>Arthrology</b> <ul style="list-style-type: none"> <li>• Joints: structure, types and movements.</li> <li>• Description of joints of extremities, inter-vertebral joints and temporomandibular joint with their clinical anatomy.</li> </ul>
12	<b>Myology</b> <ul style="list-style-type: none"> <li>• Structure and types of muscles. Description of important muscles: origin, insertion, actions, nerve supply and clinical anatomy.</li> <li>• Muscle movements in Yogasana.</li> </ul>
13	<b>Nervous System</b> <ul style="list-style-type: none"> <li>• Nervous system: Introduction and classification</li> <li>• Meninges</li> <li>• Description of Brain and Spinal cord.</li> <li>• Description of Peripheral Nervous System: Cranial and Spinal nerves, Brachial, Cervical, Lumber and Sacral nerve plexus,</li> <li>• Anatomical consideration of Autonomic Nervous System,</li> <li>• Formation and circulation of cerebrospinal fluid</li> <li>• Blood supply of Brain and Spinal cord.</li> </ul>
14	<b>Endocrinology</b> <ul style="list-style-type: none"> <li>• Description of endocrine glands (Pituitary, Thyroid, Parathyroid, Thymus, Pineal and Suprarenal glands) with clinical aspects.</li> <li>• Histology of all glands.</li> </ul>
15	<b>Lymphatic system</b> <ul style="list-style-type: none"> <li>• Introduction Structure included in lymphatic system: Lymph vessels, Lymph nodes, Lymph glands with their clinical importance.</li> </ul>

SN	A2 List of Topics AyUG-RS
1	<b>Pramana Sharira:</b> Anguli pramana & Anjali praman with its applied importance
2	<b>Koshtha Evam Ashaya Sharira</b> <ul style="list-style-type: none"> <li>• Definition of Koshtha with its applied importance and</li> <li>• Enumeration of Koshtanga and its description</li> <li>• Concept of Ashaya with its clinical importance</li> </ul>
3.	<b>Sira Sharir</b> <ul style="list-style-type: none"> <li>• Concept of Sira</li> <li>• Nirukti, types, enumeration of Sira and its applied aspect</li> <li>• Introduction to Sira vedha</li> </ul>
4.	<b>Dhamani Sharir</b> <ul style="list-style-type: none"> <li>• Concept of Dhamani</li> <li>• Nirukti, types, enumeration of Dhamani and its applied aspect</li> </ul>
5.	<b>Strotas Shaarira</b> <ul style="list-style-type: none"> <li>• Concept of Strotas</li> <li>• Nirukti, types, number of Strotas, Strotomool and its applied aspect</li> <li>• Types of Strotas and its description.</li> <li>• Applied aspect of Strotas</li> </ul>
6.	<b>Kala Shaarira</b> <ul style="list-style-type: none"> <li>• Definition and etymology of Kala</li> <li>• Enumeration and description of Kala</li> <li>• Applied aspect of Kala</li> </ul>
7.	<b>Indriya Shaarira</b> <ul style="list-style-type: none"> <li>• Definition of Indriya, Indriya artha and Indriya adhisthan,</li> <li>• Number and importance of Indriya</li> <li>• Description of Gyanendriya, Karmendriya and Ubhayendriya (Manas).</li> <li>• Ayurved sharir of Indriya adhisthan- Karna, Twacha, Netra, Jivha, Nasa</li> <li>• Applied aspect of Indriya</li> </ul>
8.	<b>Twacha Sharir</b> Definition, types and characteristics of Twacha with its clinical importance, significance of Twacha adhisthana in disease manifestation, its relation with Dhatu.
9	<b>Marma Sharira</b> <ul style="list-style-type: none"> <li>• Marma: definition, enumeration, classification, location</li> <li>• Surface demarcation of Marma</li> <li>• Explanation of Trimarma</li> <li>• Detail description of Marma with its applied importance.</li> </ul>
10	<b>Respiratory System</b> <ul style="list-style-type: none"> <li>• Bronchial tree and Lungs with their clinical aspects.</li> <li>• Respiratory tract: Nasal cavity, Pharynx, Larynx, Trachea</li> <li>• Pleura with its clinical aspects</li> <li>• Diaphragm and its opening</li> <li>• Histology of all organs</li> </ul>

<b>11</b>	<b>Digestive system</b> <ul style="list-style-type: none"> <li>• Regions of abdomen</li> <li>• Organs of digestive tract (alimentary tract) with their clinical aspects.</li> <li>• Digestive glands: Liver, Spleen and Pancreas.</li> <li>• Description of peritoneum with its clinical aspects</li> <li>• Histology of all organs</li> </ul>
<b>12</b>	<b>Cardiovascular system</b> <ul style="list-style-type: none"> <li>• Description of Heart</li> <li>• Structure of artery &amp; vein</li> <li>• Importance blood vessels with their course and branches.</li> <li>• Pericardium with applied aspect</li> <li>• Histology of Heart</li> </ul>
<b>13</b>	<b>Urinary System</b> <ul style="list-style-type: none"> <li>• Urinary tract: Kidney, Ureter, Urinary Bladder and Urethra with their clinical aspects</li> <li>• Histology of all organs</li> </ul>
<b>14</b>	<b>Reproductive system</b> <ul style="list-style-type: none"> <li>• Male Reproductive system: Reproductive organs, Scrotum and glands (Testis, Prostate and Seminal vesicles) with their clinical aspects.</li> <li>• Female reproductive system: Introduction of external genital organ in brief and internal reproductive organs in detail, tract and glands with clinical importance.</li> <li>• Histology of all organs</li> </ul>
<b>15</b>	<b>Sensory organs</b> Description of structures of Eye, Ear, Nose, Tongue and Skin with their clinical aspects.

**AyUG-RS List of practicals-**

<b>SN</b>	<b>Name of Practical</b>
P1	<ul style="list-style-type: none"> <li>• Branches of anatomy. History of Anatomy</li> <li>• Ethics in dissection hall</li> </ul>
P2	<u>Anatomical Terminologies</u> Anatomical position, Planes, and explanation of anatomical terms related to skin, fasciae, bones, joints and their movements, muscles, ligaments, tendons, blood vessels, nerves.
P3	Preservation methods of the cadaver, Mrut sharir Samshodhan <ul style="list-style-type: none"> <li>• Different methods of preservation techniques.</li> </ul> Brief introduction of chemical composition of preservative fluid.
P4	Introduction of Anatomy Act and Brief detailing about Bio medical waste management act 1960
P5	Shava vichhedana – detailed dissection of the whole body <ul style="list-style-type: none"> <li>• Line of incision</li> <li>• Dissection technique</li> <li>• Identification of different tools and its Uses</li> <li>• Identification and characteristics of Different layers and its relation</li> </ul> <u>In Extremities:</u> Dissection of extremities & Identification of related structures <u>In Trunk region:</u> Demonstration of visceral relation of thoracic, abdominal and pelvic organ <u>In Head Region:</u> Dissection of head, Identification of Meninges, Major Sulci and gyri, Superficial origin of Cranial Nerve and and venous Sinus.

	Dissection of sensory organs
P6	<ul style="list-style-type: none"> <li>Practical study of vital organs, Histological slides</li> <li>Identification of external features of thoracic, abdominal and pelvic viscera</li> </ul>
P7	Practical study of bones
	Identification of external features of bones and different attachment
	<p>Surface and Radiological anatomy</p> <p><b><u>In Radiology Anatomy:</u></b> Characteristics of radio imaging film and detailing about its color contrasting</p> <p>Identification of Normal alignment of bodily structure – X ray film</p> <ol style="list-style-type: none"> <li>Chest X Ray – A.P And P.A view</li> <li>Detailing of A.P view of Shoulder joint, Elbow Joint, Wrist joint, Hip joint, knee joint, Ankle joint.</li> <li>Identification of basic clinical finding through X ray film related to long bones and Joints</li> </ol>
P8	<p><b><u>In Surface Anatomy Section:</u></b></p> <ul style="list-style-type: none"> <li>Identification of Underlying viscera of Nine region based upon Cadaveric and Living Anatomy</li> </ul> <p>Surface marking of thoracic, abdominal and pelvic viscera</p>
P9	<p>Practical study of Marma</p> <p>Surface markings of all Marma points and its anatomical demarcation.</p>
P10	Brief detailing about body donation, organ donation and its awareness (Communication skills)

#### AyUG-RS Non-Lecture Activities -

1	List non lecture Teaching-Learning methods	No of Activities (Values in hours)
a	Seminar / Workshop	14
b	Tutorial (TT) / Group Discussion (GD)	14
c	Problem based learning (PBL)	8
d	Integrated teaching (IT)	8
e	Early Clinical Exposure (ECE)/ Case Base Learning (CBL)	18
f	Self-Directed Learning (SDL) / Summary writing	12
g	Field visit	6
		<b>80</b>
2	<b>Practical (refer Table 4)</b>	<b>240</b>
	<b>Total</b>	<b>320</b>

#### AyUG-RS-Other Educational Activities (Additional):

- Field visit (community/anatomy museum) - II & III term
- Practical journal – II & III term
- Summary/ Essay writing (Research papers/Samhitas literature review)- II or III term

#### AyUG-RS Distribution of practical examination-

SN	Heads	Marks
1	Spotting (Refer Table 6 H II below)	20
3	Kostha Ashay Sharir, Dissected organs and histology slides	20
4	Ashti, Sandhi, Peshi, Bones and Joints,	20



5	Marma Sharir, Surface & Radiological anatomy	20
6	Practical record (15 Marks) and Communication Skill (5 Marks)	20
7	Viva-Voce (Objective Structured) (Refer table 6 H – III)	70
8	Internal assessment	30
	<b>Total Marks</b>	<b>200</b>

**AyUG-RS -Reference and Resources**

1. Parishadhya Shabdarth Sharir
2. Pratyaksha shaririram
3. Sharisthana of all Samhita
4. Sushrut Samhita Sharirshtana- Dr. Bhaskar Govind Ghanekar
5. Brihat Shariram Vaidyaratna- P.S. Varrier
6. Abhinava Shariram- Acharya Damodar Sharma Gaur
7. Manava Sharir (Revised Edition)- Prof. Dinkar Govind Thatte
8. Sharir Rachana Vigyan (English)- Vaidya P.G. Athawale
9. Manual of Practical Anatomy Cunnigham Practical Manual Vol-1, Vol-2, Vol-3
10. Clinical Anatomy in Ayurveda - Prof. D.G. Thatte & Prof. Suresh Chandra
11. Ayurvedic Human Anatomy - Prof. Dr. Giridhar M. Kanthi
12. Sharir Rachana Vigyan Vol I & II– Dr. Sunil Kumar Yadav
13. Regional Anatomy - B. D. Chaurasia
14. Rachana Sharir Vigyana - Dr. Mahendra Sing
15. Relevant chapters of Brihtrayee and Laghuthrayee
16. Gray's Anatomy
17. Text Book of Human Anatomy- Inderbir Singh
18. Clinical Anatomy- Richard S Snell
19. Fundamentals of Human Anatomy- Dr. Chakraborty
20. Human Osteology - Poddar
21. A Handbook of Anatomical Terminology, Dr. Nidhi Shrivastava, Dr. Ravi Kumar Shrivastava, Dr. Rakesh Kumar Sharma.

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**Samhita Adhyayan 1 Syllabus- Subject Code: AyUG-SA1**  
**Theory- Two Papers**

**Teaching Hours - 400 [Lecture (LH) - Theory -140, Non-Lecture (NLH) – Theory**

Sr No	A2 List of Topics AyUG-SA1
1.	<p><b>Introduction to Samhita-</b></p> <ul style="list-style-type: none"> <li>i. Definition of Samhita and its types and nomenclature. (Samhita- forms, nomenclature, commentary, types etc.)</li> <li>ii. Brief Introduction of Samhitas (Bruhatrayee), their commentaries and commentators ( Preceptors, authors, redactors, commentators )</li> <li>iii. Tantrayukti, Tantraguna and Tantradosha</li> <li>iv. RachanaShaili &amp; BhashaShaili (Composition and Language style) of Bruhatrayee.</li> <li>v. Anubandha Chatushtya</li> <li>vi. Ashta-Prashna</li> <li>vii. Trividha Jnyanopaya</li> </ul>
	<b>Ashta ng Hriday Samhita - Sutrasthan (1-15 Adhyaya) :50 Marks</b>
2.	<p>AH Su.1. Ayushkamiya Adhyaya-</p> <ul style="list-style-type: none"> <li>i. Ashtang Hridaya parichaya (Introduction to Ashtang Hridaya)</li> <li>ii. Dosha-dhatu-mala parichaya (Introduction to dosha, dhatus and mala)</li> <li>iii. Agni- koshta swarup (Concept of digestive fire and bowel habits)</li> <li>iv. Rasa, virya, vipaka prabhav guna parichaya (Introduction to rasa, virya, vipaka, prabhav and guna)</li> <li>v. Rog-aarogya swarup (Concept of health and disease)</li> <li>vi. Roga-aatur parikshan (Assessment of disease and diseased)</li> <li>vii. Desha and kaala parichaya (Introduction to habitat and time )</li> <li>viii. Chikitsa bheda (Types of treatment)</li> <li>ix. Pada chatushtaya Swarupam (Concepts of four factors of treatment)</li> <li>x. Vyadhi sadhyasadhyatva (Types of prognosis)</li> <li>xi. Recitation of important shlokas</li> </ul>
3.	<p>AH Su.2. Dinacharya Adhyaya-</p> <ul style="list-style-type: none"> <li>i. Dinacharya vihaar (Importance of various regimen in Dinacharya)</li> <li>ii. Shuddhi Niyam (Personal hygiene)</li> <li>iii. Dharmapalan evam sadvrutta palan</li> <li>iv. Recitation of important shloka</li> </ul>
4.	<p>AH Su.3. Rutucarya Adhyaya-</p> <ul style="list-style-type: none"> <li>i. Shadrutu (Classification of seasons according to Uttarayan and Dakshinayan)</li> <li>ii. Rutucharya (detailed regimen of the six seasons)</li> <li>iii. Rutusandhi (inter-seasonal period)</li> <li>iv. Recitation of important shlokas</li> </ul>
5.	<p>AH Su.4. Roganutpadaniya Adhyaya-</p> <ul style="list-style-type: none"> <li>i. Adharaneeya vega and chikitsa (symptoms arising due to suppression of natural urge and their treatment)</li> <li>ii. Dharneeya vega (Concept of urges which have to be suppressed)</li> <li>iii. Shodhan chikitsa (Importance of purification treatments)</li> <li>iv. Hita-aahar-vihar sevan (Importance of following healthy lifestyle)</li> <li>v. Recitation of important shlokas</li> </ul>
6.	<p>AH Su.5. Dravadravaya Vijnaniya Adhyaya-</p>

	<ul style="list-style-type: none"> <li>i. Jala Varga (Water from different sources, various states of water)</li> <li>ii. Dugdha Varga (Milk and milk products)</li> <li>iii. Ikshu Varga (Sugarcane and its products)</li> <li>iv. Madhu varnana (Properties of honey)</li> <li>v. Tail Varga (Oils of various sources)</li> <li>vi. Madya Varga (Types of alcoholic beverages)</li> <li>vii. Mutra Varnana (Types of urine)</li> <li>viii. Recitation of important shlokas</li> </ul>
7.	<p>AH Su.6. Annaswaroopa Vijnaneeya Adhyaya-</p> <ul style="list-style-type: none"> <li>i. Shuka- Dhanyanam Samanya Gunah (Properties of various types of cereals)</li> <li>ii. Shimbi- Dhanyanam Samanya Gunah (Properties of various types of Pulses)</li> <li>iii. Mamsasya Samanya Gunah (Properties of meat of various animals )</li> <li>iv. Shakayoh Samanya Gunah (Properties of various types of vegetables)</li> <li>v. Phalayoh Samanya Gunah (Properties of various types of Fruits)</li> <li>vi. Kritanna varganam Samanya Gunah (Properties of various types of cooked food)</li> <li>vii. Aushadhanam Samanya Gunah (Properties of various types of medicinal herbs)</li> </ul>
8.	<p>AH Su.7. Annaraksha Adhyaya-</p> <ul style="list-style-type: none"> <li>i. Rajnikate- Vaidyasthiti ( Important place of Vaidya in Kings palace)</li> <li>ii. Savishanna Lakshanam (Properties of poisoned food)</li> <li>iii. Savishanna Pariksha (Examination of food contaminated with poison)</li> <li>iv. Savishanna-Lakshana- Aushadha ( Signs of food poisoning and its treatment)</li> <li>v. Viruddha Aahar (Incompatible food and food practices)</li> <li>vi. Satmikaran Krama (Method of adaptation of wholesome food habits and to taper unwholesome food habits)</li> <li>vii. Aahar-Shayan-Abrahmacharya – Trayopasthambha (Three accessory pillars of Health)</li> <li>viii. Recitation of important shlokas</li> </ul>
9.	<p>AH Su.8. Matrashitiya Adhyaya-</p> <ul style="list-style-type: none"> <li>i. AaharMatra (appropriate quantity of food)</li> <li>ii. Heen-matra, ati-matra bhojan dosha Demerits of excess and less quantity of food)</li> <li>iii. Alasak, Visuchika (Etiopathogenesis and management principles of Vishuchika and Alasak)</li> <li>iv. Apatarpan chikitsa</li> <li>v. Types of Ajeerna (indigestion) and its causes</li> <li>vi. Bhojan-samyak yog (Ideal regimen and time for taking food)</li> <li>vii. KukshiVibhag (Imaginary parts of the stomach)</li> <li>viii. Details of Anupan (Liquid consumed along with or after food)</li> <li>ix. Recitation of important shlokas</li> </ul>
10	<p>AH Su.9. Dravyaadi Vijnaniya Adhyaya-</p> <ul style="list-style-type: none"> <li>i. Dravya shreshthtva(Predominance of Dravya)</li> <li>ii. Dravyasya panchbhautikatvam (Prevalence of Panchamahabhutas in dravyas)</li> <li>iii. Panchbhautik dravyanaam guna (Characteristics of PanchabhautikDravyas)</li> <li>iv. Principles of dravyas viz Veerya-Vipaka- Prabhava</li> <li>v. Recitation of important shlokas</li> </ul>
11	<p>AH Su.10. Rasabhedhiya Adhyaya-</p> <ul style="list-style-type: none"> <li>i. Shadrasanaam utpatti (Origin of Shadrasa)</li> <li>ii. Shadrasa parichaya (Identity of Six Rasas)</li> <li>iii. Shadrasa karma, guna, atiyoga lakshana (Functions, properties, and presentation of excessive intake of Six Rasas.)</li> </ul>

	iv. Recitation of important shlokas
12.	AH Su.11. Doshadi Vijnaniya Adhyayai. i. Importance of dosha dhatu mala ii. Dosha dhatu mala prakruta and vaikruta karma (normal and abnormal functions) iii. Dosha dhatu mala ashraya- ashrayi bhava (relation between dosha and dhatus) iv. Samanya chikitsa siddhanta for dosha dhatu mala vrudhhi kshaya (treatment principles) vi. Agni (Digestive fire) vi. General pathophysiology for origin of diseases vii. Ojus (Essence of dhatus) viii. Vriddhi-kshaya bshesaja ix. Recitation of important shlokas
13.	AH Su.12. Doshabhedhiya Adhyayai. i. Dosha and dosha bheda (Dosha and their types) ii. Dosha chaya, prakopa, prasham karanani (Causes of dosha accumulation, aggregation and alleviation) iii. Trividhakarana (three causative factors of disease) iv. Trividha Roga marga (three pathways of disease) v. Aatura parikshbhaav (assessment methods) vi. Recitation of important shlokas
14.	AH Su.13. Doshopakramaniya Adhyayai. i. Tridosha- upakrama (Treatment principles of vitiated doshas) ii. Shuddha-ashuddha chikitsa lakshana (Accurate and inaccurate treatment) iii. Dosha gati (movement of doshas inside the body) iv. Concept of aama v. Dasha aushadha-kaala (ten types of times for administering medicines) vi. Recitation of important shlokas vii. Research Updates – Langhan : Fasting and autophagy induction – how cell recycle and renew their content, a process called autophagy.
15.	AH Su.14. Dvididhopakramaniya Adhyayai. i. Concept of Langhan and Brihan therapies (Treatment procedures for making the body thin and for nourishment) ii. Concept of Shodhan and shaman therapies (Purification and palliative treatments) iii. Concept of Atistaulya and atikarshya (Obesity and emaciation) iv. Recitation of important shlokas
16.	AH Su.15. Shodhanadigana Sangraha Adhyayai. i. Groups of dravyas according to specific action ii. Groups of dravyas according to major ingredient as well as action
<b>Charak Samhita – Sutrasthan (1-12 Adhyaya):50 Marks</b>	
17.	Ch S Su 1. Deerghanjiviteeya Adhyayai. Ayurvedavataranam (Genealogy of Ayurveda) ii. Arogsya chaturvarge pradhanam karanam iii. Trisutra Ayurveda iv. Details of Shat padartha v. Ayurvedasya lakshanam tatha prayojan vi. Ayusho lakshanam paryayashcha vii. Samanyavisheshayorlakhanam viii. Tridanda

	<p>ix. Vyadhinam trividho hetusamgrah  x. Vyadhinam ashraya tatha Arogasya karanam  xi. Atmano lakshanam  xii. Details about Sharira and manas dosha  xiii. Sadhyaasadhyata vikara chikitsa  xiv. Rasa varnanam  xv. Dravya bheda  xvi. Aushadhinam nama-rupa-upyog gyan  xvii. Bhashagbubhushoh kartavyam  xviii. Yuktasya bhaishajyasya lakshanam  xix. Bhishaktamasya lakshanam  xx. Recitation of important shlokas</p>
18.	<p>Ch S Su 2. Apamarga Tanduliya Adhyayai.  i. Shiro Virechana Dravya &amp; Main Indications  ii. Vamana Dravya &amp; Main Indications  iii. Virechana Dravya &amp; Main Indications  iv. Asthapana Dravya &amp; Main Indications  v. Anuvasana Dravya &amp; Main Indications  vi. Ashtavimshathi Yavagu  vii. Panchakarma Mahatwa &amp; Vaidya Guna  viii. Recitation of important shlokas</p>
19.	<p>Ch S Su 3. Aragvadhya Adhyayai.  Dwa Trimshath Churna Pradeha &amp; Main Indications</p>
20.	<p>Ch S Su 4. Shadvirechana-shatashritiya Adhyayai.  i. Shadvirechan aashrya  ii. Panchkashaya yoni  iii. Panchvidh kashaya kalpana  iv. Panch kashaya shatani</p>
21.	<p>Ch S Su 5. Matrashiteeya Adhyayai.  Matravat Ahara  ii. Nature of Ahara (Guru, Laghu)  iii. Ahara Matra  iv. Matravat Ahara Phala  v. Ahara Sevana Vidhana on the bases of its nature  vi. Swasthavrutta  vii. Anjana  viii. Dhumapana  ix. Nasya  x. Dantadhavana  xi. Jivhanirlekhana  xii. Gandusha  xiii. Abyanga  xiv. Parimarjana  xv. Vastra Gandha Malyadi Dharana  xvi. Shouchavidhi  xvii. Kshoura Karma  xviii. Padatra Dharana  xix. Chatra Dharana</p>

	<p>xx. Important Shlokas for recitation</p> <p>xxi. Research Updates: Role of Dinacharya to maintain circadian rhythm Role of therapeutic message for cell rejuvenation Mechanism of satiation and proper quantity of food (Sauhitya Matra)</p>
22.	<p>Ch S Su 6. Tasyashiteeya Adhyayai.</p> <p>Classification Samvastara</p> <p>ii. Visarga Kala</p> <p>iii. Adana kal;a</p> <p>iv. Shadrutuvivechana and Charya</p> <p>v. Hamsodaka vi. Saatmya</p> <p>vii. Important shlokas for recitation</p> <p>viii. Research Updates: What causes the season: Summer and winter solistice Equinoxes Rotation of earth around sun.</p>
23.	<p>Ch S Su 7. Naveganadharaniya Adhyayai.</p> <p>i. Adharneeya-Dharneeya vega lakshan, chikitsa</p> <p>ii. Vyayam (Details regarding exercise)</p> <p>iii. Ahita sevan evam varjya vidhi</p> <p>iv. Deha prakruti (Body constitution)</p> <p>v. Agantuja evam Pradnyaapradh janya vyadhi evam chikitsa</p> <p>vi. Important Shlokas for recitation</p> <p>vii. Research Updates: Corelation of genomic variation with the classification of Prakriti</p>
24.	<p>Ch S Su 8. Indriyopakramaniya Adhyayai.</p> <p>i. Enumeration of Indriya, Dravya, Adhishthana, Artha, Buddhi</p> <p>ii. Manas Lakshana</p> <p>iii. Ekatvam of Manas</p> <p>iv. Sattvikatva, Rajasatva and Tamasatva of Manas</p> <p>v. Indriya PanchaPanchaka</p> <p>vi. Adhyatma Dravya Guna Sangraha</p> <p>vii. Mahabhuta – Indriya sambandh</p> <p>viii. Prakriti – Vikriti hetu</p> <p>ix. SadvrittaAnushthana</p> <p>x. Hetuchatushtaya xi. AnuktaSadvritta</p> <p>xii. Important Shlokas for Recitation</p> <p>xiii. Research updates: Mental health and gut microbiota</p>
25.	<p>Ch S Su 9. Khuddakachatushpada Adhyayai.</p> <p>i. Chikitsa Chatushpada</p> <p>ii. Roga-Arogya Lakshana</p> <p>iii. Chikitsa Lakshana</p> <p>iv. Vaidya, Dravya (Bheshaja), Paricharaka, Aatura guna</p> <p>v. Vaidya pradhanatva</p> <p>vi. Adnya chikitsak dosha</p> <p>vii. Sadvaidya lakshana</p> <p>viii. Vaidya kartavya</p> <p>ix. Vaidya Vritti</p> <p>x. Recitation of important Shlokas</p> <p>xi. Research Updates: Medical ethics-principles Soft Skill development for medical students Emotional Intelligence as a crucial component in medical edication</p>
26.	<p>Ch S Su 10. Mahachatushpada Adhyayai.</p> <p>i. Catushpaada-bheshajam alamaarogyaayeti (aatreya-krta)</p>

	<p>ii. Bhesaja-abheshajayo tulyatvapratipaadana – (maitreya-kṛta)</p> <p>iii. Its conclusion by Atreyaiv.</p> <p>iv. Pareekshya-kaarino hi kusalaa bhavanthi</p> <p>v. Cikitsaa sootram</p> <p>vi. Cikitsaayaam yasolaabhe kaaranam</p> <p>vii. Asaadhyaroga-cikitsaayaam haani</p> <p>viii. Further division of saadhyaasaadhyata</p> <p>ix. Sukha-saadhya lakshanam</p> <p>x. Krcchra-saadhya lakshanam</p> <p>xi. Yaapya lakshanam</p> <p>xii. Pratyakhyeya lakshanam</p> <p>xiii. Benefit of knowledge of prognosis</p> <p>xiv. The versatile usage of the term ‘mithyaa-buddhi’</p> <p>xv. Recitation of important shlokas</p>
27.	<p>Ch S Su 11. Tisraishaniya Adhyayai.</p> <p>i. TrividhaEshana (Three Desires of life)</p> <p>ii. Paralokaeshana</p> <p>iii. Chaturvidhpariksha</p> <p>iv. Punarjanma siddhi by Chaturvidhpramanas</p> <p>v. Trayopasthambha</p> <p>vi. Trividhabala</p> <p>vii. Trividhaayatana</p> <p>viii. Atiyoga, Heenayoga and Mithya yoga of artha, karma and kaala</p> <p>ix. Trividharoga</p> <p>x. Treatment for manasavyadhi</p> <p>xi. Trividharogamarga</p> <p>xii. Trividhavaidya</p> <p>xiii. Trividhaoushadha</p> <p>xiv. Ashtatrika</p> <p>xv. Important Shloka for Recitation</p>
28.	<p>Ch S Su 12. Vatakalakaliya Adhyayai.</p> <p>i. Vata guna</p> <p>ii. Views of various Acharyas on Vata dosha Guna avum Karma</p> <p>iii. Vayu prakop-prasham karan</p> <p>iv. Akupita, kupita vayu karma</p> <p>v. Vata Dosha – Clinical application</p> <p>vi. Akupita-kupita pitta karma</p> <p>vii. Akupita- kupita kapha karma</p> <p>viii. Atreya’s exploration on Tridosha</p> <p>ix. Important shloka for recitation</p>

### Non Lecture Activities Course AyUG-SA1

Non Lecture activities- (Samhita Pathan / In Class Activities & Hospital Based activities) : 260 hrs

SN	Name of Practical
1.	Samhita Pathan
	In Class Activities/ Case Based Activities/ Field Activities
2.	1. Introduction to Samhita Problem based learning : Application of Tantrayukti for chapter number 1, 2 of Ashtang Hridaya and chapter 1 <sup>st</sup> of charak Samhita.
	Group Activity Interpret Anubandha Chatushtya with examples Interpret Ashta Prashna with example
	Ashtang Hriday Samhita - Sutrasthan (15Adhyaya)
3.	AH Su 1. Ayushkamiya Adhyaya Commentary Based activity- Fetch the meaning of important terms on the basis of commentary. (Any 30 important words). Make your own dictionary.
4.	AH Su 2. Dinacharya Adhyaya- Survey Activity: Application of concepts- Dinacharya and its application: Proforma based assessment in healthy volunteers/ patients. Daily routine shall be recorded on the basis of predesigned proforma and then shall discuss.  Communication Skill introduction. Survey Role play.
5.	AH Su 3. Rutucarya Adhyaya- Application of concepts- Ritucharya and application - Proforma based assessment in healthy individuals or patients.
6.	AH Su 4. Roganutpadaniya Adhyaya- Case Based Activity/Learning- Assess the sign and symptoms of given case on the basis of learning of Adharaneeya Vegas and find out the probable causative factors on the basis of principles taught.
7.	AH Su 5. Dravadravya Vijnaniya Adhyaya Group Activity-(Group presentation)- Utility of Dravyas:- Allocate the Dravadravya Vargas among student groups. Every group will Justify (represent) the practical utility of dravyas allotted to them.
8.	6. Annaswaroopa Vijnaneeya Adhyaya- Group presentation- Justify the utility of this chapter in present era- Every group will illustrate the utility of their assigned Aahara Dravya Varga (Discuss practically available dravyas)
9.	7. Annaraksha Adhyaya- Discussion- Explore the present dietary habits- Explore the Various diet combinations used in present society (by four family/ Relatives/ neighborhood) on the basis of principles learned for viruddhahar. Discuss them in class. Trayopastambha -Importance of Nidra- Flipped classroom- Share the prerecorded videos/ other material with students before class. On the basis of these have discussion.
10.	8. Matrashitiya Adhyaya- Case Based learning- Determine adverse effects of heena matra (inadequate quantity of food) and atimatra (excess quantity of food) ahara:-



	(Video clip of patient suffering from a type of Ajeerna can be shared in class and then group wise discussion on the concept.) Group Activity- Differentiate between the food items recommended and non-recommended for daily use:- Cross refer the previous chapters and demonstrate the rationale behind the wholesome or unwholesome nature of these enlisted Dravyas referring their qualities.
11.	9. Dravyaadi Vijnaniya Adhyaya- Application of concepts- Enlist the dravyas according to Rasa, Veerya, Vipaka, Prabhav. (Can refer chapter 5,6,10 of Ashtang Hriday and Chapter 2, 3, 4 of Charak Samhita). Apply the concepts learned in present chapter to understand the action of Dravyas.
12.	10. Rasabhediya Adhyaya- Case based learning- Prepare proforma enlisting the sign and symptoms of excess consumption of six Rasas and regular diet pattern. Assess the predominance of Rasa consumption in patients or healthy volunteers. Then Correlate with the case findings.
13.	11. Doshadi Vijnaniya Adhyaya- Case Based learning-(CBL)- Assess the patient for Vriddhi and Kshaya Lakshanas of Dosha-Dhatu-Mala, based on predesigned proforma. Discuss these case findings later in class.
14.	12. Doshabhediya Adhyaya- Model making Activity- Working models on Dosha Sthanas or Subtypes of Doshas, Chaya, Prakop and Prashama of Doshas: PBL/CBL Give one problem/case based on Samanya Dosha Nidan. Student will identify possible causative factors responsible for vitiation of Doshas in given problem.
15.	13. Doshopakramaniya Adhyaya- Case Based learning-(CBL)- Group activity- Observe the signs and symptoms of Ama in any five patients (Group wise) and present and discuss it in class. Seminar Presentation- a. Understand Aushadha Kaal in relation with subtypes of Vata Dosha. b. Recognize the principles applicable during treatment of Saam Dosha and Dushyas.
16.	14. Dvididhopakramaniya Adhyaya- Case based learning-  Find out the causative factors of Atishulya in present era (On the basis of predesigned proforma) CBL Share video clip of any patient suffering from Atikarshya- On the basis of previous learning discuss the contributing factors responsible for malnourishment. (Explore Dhatu Sneha Parampara in present context).
17.	15. Shodhanadigana Sangraha Adhyaya- Group Presentation- Divide the various Aushadha Vargas among students and a group will represent each varga and related practical information.
	Charak Samhita – Sutrasthan (1-12 Adhyaya )
18.	CS Su 1. Deerghanjiviteeya Adhyaya- Compilation work: (based on commentry) ● Student has to write 20 terminologies with meanings referring Chakrapani commentary. Then after these terms shall be discussed in class.
19.	CS Su 2. Apamarga Tanduliya Adhyaya- Visit to Dravyaguna Department- Identify the dravyas on the basis of different karmas
20.	CS Su 3. Aragvadhya Adhyaya- Group Discussion-

	<p>Probable mode of action of drugs applied externally? In which form they will more absorbable? (May take help of published literature; discuss linking with Ayurveda fundamentals.)</p> <p>Practical demonstrations in Panchakarma unit on patients.</p> <p>Workshop/ demonstration of preparation of different lepas useful in different conditions.</p>
21.	<p>CS Su 4. Shadvirechana-shatashritiya Adhyaya-</p> <p>Practical Demonstration: Visit to Dravyaguna Department and demonstration of various Mahakashay and its uses (Integration with Dravyaguna department)</p>
22.	<p>CS Su 5. Matrashiteeya Adhyaya-</p> <p>Visit to Panchakarma Unit of Hospital – Demonstration of abhyanga, mardana, udvartana and other procedures to be followed in daily routine (Integration with Panchakarma Department)</p> <p>Group Project :</p> <p>Gather information about nutritive values of Nitya Sevaniya Dravyas. Assess their classical properties. Discuss why these dravyas are specially advised for regular consumption.</p>
23.	<p>CS Su 6. Tasyashiteeya Adhyaya- Documentation- Festival and rutu-</p> <p>Documenting the changes in the food habits and lifestyle as per the rutu with the parents and elders and also discussing on relevance of rutucharya concept with Indian festivals.</p> <p>Short Essay writing /Poster making-</p> <p>Does and don'ts to be followed according to various seasons ( Refer both the Samhitas for this activity)</p>
24.	<p>CS Su 7. Naveganadharaniya Adhyaya:-</p> <p>Vedio clip making Activity-</p> <p>Educating people about harms of vega dharana by social media campaigns</p> <p>Group Discussion-</p> <p>Finding reasons for vega dharana in present day lifestyle.</p>
25.	<p>CS Su 8. Indriyopakramaniya Adhyaya- Group Presentation-</p> <p>Sadvrutta – Interpreting relevance of different sadvrutta in present scenario. Developing new sadvрутtas as per todays' lifestyle referring classics.</p>
26.	<p>CS Su 9. Khuddakachatushpada Adhyaya-</p> <p>Doctor Patient communication introduction, Role play. Feedback collection of chikitsa chatushpada Group activity-</p> <p>Collect Feedback on qualities of Vaidya from rogi and upasthata. Collect Feedback on qualities of rogi from vaidya and upasthatha Collect Feedback on qualities of upasthatha from rogi and Vaidya</p>

	Collect feedback on qualities of dravya from the experts of dravyaguna and rasa shastra
27.	CS Su 10. Mahachatuspada Adhyaya- Developing proforma for sadhya asadhya vyadhi lakshanas- Guide students on how to prepare a proforma to assess any available parameters.
28.	CS Su 11. Tisraishaniya Adhyaya- Debate :- Punarjanma siddhant as per different thoughts. Debate on punarjanma with different references as per classics and contemporary understanding.
29.	CS Su 12. Vatakalakaliya Adhyaya- Role Play (Enact sambhasha parishad) – Distribute the characters of the rishis given in chapter. And guide them with the script. Arrange a forum where these students will be doing sambhasha parishad on vata kala-akala.  Decode the sutras- Students in groups will use different tools like infographics/ animation/ ppts to illustrate the normal functions of Vata Dosha explained in present chapter. (Refer Chakrapani commentary thoroughly to understand the meaning of Sanskrit shlokas). Introduction to Group Dynamics. Communication skills for Group Discussions.
30.	Shloka Recitation Competition- At the end of the year/ every term such competition shall organized by department.
31.	Ayurveda Quiz- On the basis of assigned syllabus.
32.	Poster making Competition / SA writing completion / Making video clips for general people to make awareness about Ayurved living.

Distribution of Practical Exam Practical 100 Marks – (Viva 75 + Elective 10 (Set-FC) + IA 15 ) Marks

### Distribution of Practical Exam

**Practical 100 Marks – (Viva 75 + Elective 10 (Set-FC) + IA 15 ) Marks**

SN	Heads	Marks
A	<b>Viva (75 Marks)</b>	
1	Viva on Record Book (of yearly conducted non lecture activities)	15
2	Viva on Shloka Book and Shloka Recitation	10
3	Identification of Tantrayukti Viva on .Introduction to Samhita	15
4	Viva Voce on AH	15
5	Viva Voce on Ch Su	15
6	Communication Skill	05
B	<b>Internal Assessment</b>	15
C	<b>Electives</b>	10
	<b>Total Marks</b>	<b>100</b>

## Reference books/Resources

### • Introduction to Samhita

1. Ashtanghridayam with the commentaries 'Sarvangasundara' of Arundatta and 'Ayurvedarasayana' of Hemadri, Collated by Dr. Anna Moreshwar Kunte and Krishna Ramchandra Shastri Navre
2. Sushruta Samhita by Dr. Ambikadutta Shastri
3. Ayurvedeeya Padartha Vijnana by Prof. C. R. Agnivesh
4. Ayurvedeeya Padartha Vijnana and Ayurvedeeya itihaasam by Prof. C. R. Agnivesh
5. Ayurvediya Padarth Vidnyan by Vd. Ranjit Rai Desai
6. History of Medicine in India by Acharya Priyavrat Sharma
7. History of Indian Medicine by J. Jolly

### • Ashtang Hridaya

1. Ashtanghridayam with the commentaries 'Sarvangasundara' of Arundatta and 'Ayurvedarasayana' of Hemadri, Collated by Dr. Anna Moreshwar Kunte and Krishna Ramchandra Shastri Navre
2. Ashtanga Hridaya : English commentary by Dr. T. Shreekumar
3. Ashtanga Hridaya : English commentary by Dr. Vishwavasudhar Gaur
4. Ashtang Hridayam : English translation by Prof. K.R. Srikantha Murthy
5. Ashtanga Hridaya –English translation by Vd. Anantram Shastri
6. Ashtanga Hridayam by Dr. B. Ramarao
7. Illustrated Ashtanga Hridaya text with English Translation by Dr. R. Vidyath
8. Ashtanga Hridaya: Hindi commentary by Lalchanda Vaidya
9. Ashtanga Hridaya: Hindi commentary by Vd. B.L.Gaur

### • Charak Samhita

1. Charakasamhita by Agnivesha Revised by Charaka and Dridhbala with the Ayurveda Dipika commentary of Chakrapanidatta Edited by Vaidya Yadavji Trikamji Acharya
2. Charak Samhita (English Commentary): Dr. Ram Karan Sharma and Vd. Bhagwan Dash or Acharya Priyavrata Sharma
3. Charak Samhita with translation of Chakrapani commentary by Harishchandra Kushvaha
4. Charak Samhita by Acharya P.V.Sharma
5. Charak Samhita (Hindi commentary): Vaidya Jayadev Vidyalkar
6. Charak Samhita (Hindi commentary): Vaidya Atridev Vidyalkar
7. Charak Samhita (Hindi commentary): Prof. Gorakhanath Chaturvedi and Kashinath Shastri
8. Charak Samhita (Hindi commentary): Dr. Brahmanand Tripathi
9. Charak Samhita (Hindi commentary): Dr. Ravidatta Tripathi
10. Charaka Samhita –Ayurveda Dipika Commentary- Hindi translation by Dr. B.L.Gaur
11. Legacy of Charak – M S Valiathan
12. Charak e-Samhita –National Institute of Indian Medical Heritage – <http://niimh.nic.in/ebooks/ecaraka>
13. Charakasamhitaonline.com- [Charak Samhita New Edition \(carakasamhitaonline.com\)](http://Charak Samhita New Edition (carakasamhitaonline.com))