

FELLOWSHIP COURSE IN AYURCARDIOLOGY

Syllabus / Curriculum 2018-2019



**Accredited 'A' Grade by NAAC
Placed in Category 'A' by MHRD (G01)**

Applicable to academic Session for the year 2020-21.

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Section I

Preamble:

Today's society of utmost luxuries, sedentary lifestyle, stressful jobs and changed food habits are leading to health hazards like Hypertension, Hyperlipidemia, Coronary artery disease, Valvular heart disease, etc. The incidence is increasing day by day with increased rate of morbidity and mortality. The present advanced sophisticated treatments are helpful in managing diseases but simultaneously resulting into various adverse effects. Hence amidst the high-tech western medical proficiencies, the world has turned towards Ayurveda in search of improving the quality of life as well as safe and effective treatment options.

The importance of Ayurvedic treatments is borne out by the fact that it is applicable to all cases covering a wide range of preventive, curative, and promotive conditions in the form of Shodhana, Shamana and Rasayana chikitsa.

In Ayurveda, the Cardiac disorders are explained in the chapter of Hridroga and various other pathologies like Udavarta, Medavrita vata, Swasa, Shotha etc, with detailed description of disease, its classification and management. Panchakarma, the predominant treatment in Hridroga eliminate the doshas from the root level and keep the disease under control in diseases like- CAD, RHD, HTN etc. Shaman yogas help in pacifying the disease process safely without any adverse events. Rasayana chikitsa like – Lashuna rasayana, Pippali rasayana, Guggulu kalpas, etc help to cure the disease as well as strengthening Heart and associated structures. Yoga and Diet therapy are helpful in balancing body, mind and soul.

Ayurveda aims at preventive medicine which is Uniqueness in this system of Medicine, as it is said "Swasthasya swasthya rakshanam" is the prime objective which focuses on Preventive cardiology. Dinacharya, Rutucharya, Ritu shodhana are practiced to upgrade the health. They are helpful in maintaining dosha samyavastha, normal functioning of Agni, Dhatu samyavastha and normal functioning of malakriyas ultimately resulting in good immune system. Practicing these measures many cardiovascular diseases can be prevented.

Hence KLE University Shri.B.M.Kankanawadi Ayurved Mahavidyalaya during the academic year-2017 on par with the taskforce acted rigorously to meet the needs of the society and originated the Fellowship Course in Ayurcardiology for Ayurveda Post-graduates. The aim of it is to propagate the strength of Ayurveda and to combat the devastating health issues of the society related to Cardiovascular diseases. Accordingly the Institution also carving a future of Ayurveda, by starting "Hridya" – Ayur cardiac care unit wherein various cardiac pathologies are treated with Panchakarma and Shamana chikitsa.

Section II

Goal of the Course:

Enabling competency in Cardiac Care through principles and practices of Ayurveda.

Section III

Aims and Objectives:

I AIM:

Presenting knowledge oriented, technically skillful Cardiologist to understand, resolve and to develop Ayurvedic treatment modalities for cardiac disorders.

II OBJECTIVES:

At the end of Fellowship, physician should be able to,

a. Knowledge:

- i. Describe the aetio-pathogenesis of cardiac ailments
- ii. Compute the knowledge from the classics for better clinical approach of Cardiac ailments
- iii. Evaluate Panchakarma procedures, Shamana and Rasayana yogas suitable for cardiac ailments as curative, preventive and promotive aspects

b. Skills:

- i. Interpret the findings of diagnostic methods in cardiology
- ii. Assess Nadi pareeksha as diagnostic of Hridroga
- iii. Construct Ayurvedic treatment principles in various Hridroga
- iv. Practice Ayurvedic treatments in Cardiac diseases with competency

Section IV

Regulations Governing the Fellowship course

1. Eligibility:

A person possessing the Post graduate degree in Ayurveda of a University or board of medical institution specified in second schedule CCIM act, shall be eligible for admission in Fellowship course in Ayurcardiology.

2. Intake of the Student:

The intake of students is 05 per batch.

3. Medium of instructions:

Medium of instruction shall be English

4. Duration of the Course Study:

The course of study is regular programme over a period of 12 months.

5. Attendance and Progress:

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

Each student shall attend lectures, practicals, clinics, seminars, case presentations, journal review meetings.

The student shall have to attend the hospital / postings duties as may be assigned to them during the course of study. The students shall have to do duties in respective department.

The students shall have to attend special lectures/demonstrations; seminars and such other activities as may be arranged by the department.

6. Subjects taught, Number of Lectures, Practical / Demonstrations :

NO.	SUBJECT	Code	Lectures	Clinics, Practical & Demonstrations
1	Basics of Cardiology, Etiopathogenesis & Diagnostics	Paper 1	100 hrs	100 hrs
2	Management of Cardiovascular disorders, Cardiac rehabilitation and Preventive cardiology	Paper 2	100 hrs	

Method of training:

The training for Fellowship course shall be of full time pattern. The participation of students in all facets of educational process is essential.

- a. Every candidate shall maintain log book / work-diary and record his/her participation in the training programs conducted by the department. Log book / work-diary shall be scrutinized and certified by the head of the department and head of the institution.
- b. Intensive training shall be provided in classical knowledge of Hridaya vikaras.
- c. Students will be oriented on clinical methods of examination and planning the appropriate treatment.
- d. Demonstration of Panchakarma procedures will be by Panchakarma specialists.
- e. Each student has to involve in hands on experience of panchakarma procedures.

7. Scheme of University Examinations:

a) Subjects Taught, number of Theory Papers & Marks:

No	Code	Title of the Paper	Marks
1	Paper 1	Basics of Cardiology, Etio-pathogenesis & Diagnostics	100
2	Paper 2	Management of Cardiovascular disorders, Cardiac rehabilitation and Preventive cardiology	100

b) University Practical Examination & Marks Division:

No	Code	Practical	Marks	Total
3	Paper 3	a. Clinical case – 35 marks b. Procedures/Investigations– 15 marks	50	100
		Viva Voce	50	
		a. Hands on experience of Panchakarma	50	100
		b. Log book, Clinical record book	50	

c) University Theory Question paper pattern:

Type of Questions	No. of Questions	Marks per Question	Total Marks	Grand Total
Long Essay	05	10	50	100
Short Essay	07	05	35	
Short answers	05	3	15	

- Question papers in English language only.

d) Criteria for Pass:

- Minimum marks to be secured in each Theory Paper & practical 50% separately
- A candidate failed in one or more subjects in examination shall be eligible to appear in supplementary examination.
- In case a student fails to appear in regular examination for cognitive reasons he/she will appear in supplementary exam as regular student. In such cases his/her nonappearance in regular exam will not be treated as an attempt.

e) Declaration of Class:

- A candidate obtaining 50% and more, but less than 60% of the marks in the grand total aggregate in the first attempt shall be declared to have passed the examination in Second Class.
- A successful candidate obtaining 60% marks or more but less than 75% of marks in the aggregate of all the subjects in the first attempt will be declared to have passed the examination in First Class.
- Successful candidates obtaining 75% of marks or more in the aggregate of all the subjects in first attempt will be declared to have passed the examination in distinction.
- A candidate passing a university examination in more than one attempt shall be placed in Pass class irrespective of the percentage of marks secured by him / her in the examination

8. Examiners –

Reader/ Professor of Panchakarma / Kayachikitsa Department will be the examiners.

There will be 2 examiners for university practical examinations

1. Internal Examiner
2. External Examiner from other college/university

9. SYLLABUS

Name of the Course : Fellowship course in Ayurcardiology		
Name of Subject : Paper 1: Basics of Cardiology, Etio-pathogenesis & Diagnostics		
Duration: 100 hours		Maximum Marks: Theory - 100 marks
Contents (Theory)		Hrs
Unit – 1	<p>Embryological development and applied anatomy of Hridaya (Heart) and related avayava like Sira, Srotas, Dhamani Applied aspects of Hridaya as adhistan of Dosha, Dhatu, Oja, Marma, etc. Description and applied physiology of Pranvaha Srotas, Rasavaha, Raktavaha, Medovaha and Manovaha Srotas Description of Cardiac muscle tissue, Valves w.r.t Hridaya mamsa peshi Anatomy and physiology of Heart Circulation of blood, Conduction system, Cardiac cycle Anatomy and physiology of Blood vessels Blood components, Hemostasis, Blood clotting Blood pressure</p>	20 Hrs
Unit – 2	<p>Nidana, Purvarupa, Rupa, Upasaya and Samprapti of various Hridroga, Classifications of Hridroga Applied aspects of Rasa dushti, Rakta dushti, Meda dushti, Mano dushti w.r.t Hridroga Hridroga samprapti w.r.t Vatarakta, Udavarta, Swasa, Shotha, Sthoulya, etc Knowledge of Sadhyata, Asadhyata of Hridroga and Hridaya related arishta lakshans Knowledge of etio-pathogenesis of Heart diseases - Heart failure, Cor Pulmonale, Valvular Heart disease – Aortic, Mitral and Tricuspid valvular disease Myocardial disease – Cardiomyopathy – Hypertrophic, Dilated and Restrictive Cardiomyopathy, Myocarditis, Pericardial disease, Congenital Heart disease, Systemic auto-immune disease and Heart, Kidney and Heart – Cardio-Renal syndrome, Endocrine heart disease, Knowledge of etio-pathogenesis of Vascular disease - Atherosclerosis, Ischemic Heart disease, Angina pectoris, Myocardial Infarction, Hypertension, disease of Aorta Peripheral vascular disease, Cerebrovascular disease, Pulmonary hypertension</p>	40 Hrs

Unit – 3	<p>Applied aspects of Ayurveda pareeksha, Naadi Pariksha in diagnosis of Hridroga Applied aspect of Nidana panchaka of Hridroga</p> <p>Modern approach of patient with Cardiovascular disease Clinical examination of Cardiovascular system - Arterial Pulse, Jugular Venous Pulse, Blood Pressure Precordial Palpation, Auscultation Investigations in Cardiovascular disease - Electrocardiography, Stress test, Echocardiography, Angiography, X-ray, CT scan , MRI etc Stress Echocardiography</p> <p>Knowledge of Blood investigations - Lipid profile, CPK, LFT, cardiac markers , electrolytes, etc Renal profile Information of all the instruments available in Cardiac Care Unit - Ventilator, Defibrillator, Cardiac Monitor, etc.</p>	40 Hrs
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Name of the Course : Fellowship course in Ayurcardiology		
Name of Subject : Paper 2: Management of Cardiovascular disorders, Cardiac rehabilitation and Preventive cardiology		
Duration: 100 hours	Maximum Marks: Theory - 100 marks	
Contents (Theory)		Hrs
Unit – 4	<p>Principles of management of each type of Hridroga (Cardiovascular Disease) Detailed management of all types of Hridroga (Cardiovascular Disease) Chikitsa of Rasa dushti, Rakta dushti, Meda dushti and Mano dushti w.r.t Hridroga Chikitsa of Mamsa dushti w.r.t Carditis Chikitsa of Vatarakta, Udavarta, Swasa, Shotha, Sthoulya w.r.t Hridroga samprapti Atyayika chikitsa (Emergency primary care, Cardiopulmonary Resuscitation) Pathya and Apathya in Hridroga Recent Researches in the management of Hridroga</p>	20 Hrs
Unit – 5	<p>Knowledge of Panchakarma treatments in Hridroga - Snehana, swedana, Vamana, Virechana, Basti, Raktamokshana Knowledge and Pharmaco-dynamics of herbs in cardiac disorders - Hridya gana dravyas, Rakta prasadana drayas, Medohara gana dravyas, Lekhana drayas, Medhya dravyas Knowledge and Pharmaco-dynamics of Rasoushadhi in cardiac disorders - Tamra bhasma, Loha bhasma, Abhraka bhasma, mukta , swarna, etc</p>	40 Hrs

Unit – 6	<p>Knowledge of Cardiac Rehabilitation</p> <p>Knowledge of Rasayana prayoga in Hridroga as Cardiac Rehabilitation - Lashuna, Shilajatu, Pippali, Guggulu, Medhya, Triphala rasayana, etc</p> <p>Applied aspect of Hita ahara and vyayama (Physiotherapy)</p> <p>Knowledge of Preventive cardiology -</p> <p>Applied aspect of role of Dincharya and Ritucharya in prevention of Cardiovascular Disease</p> <p>Rutu shodhana as a preventive measure</p> <p>Role of Sadvritta, Satvavajaya, yoga and Pranayama</p>	40 Hrs
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Name of Subject : Paper 3 : Practicals		
Duration : 100 hrs		Max. marks : 200 marks
Contents (Practicals)		Hrs
Unit 1	Dissection of Heart and its vasculature	10 hrs
Unit 2	Physical examination of Cardiovascular system - Arterial Pulse, Jugular Venous Pulse, Blood Pressure Inspection, Precordial Palpation, Auscultation	10 hrs
Unit 3	Bed side Clinics	30 hrs
Unit 4	Investigations - Electrocardiography, Stress test. Echocardiography, Angiography	10 hrs
Unit 5	Panchakarma demonstrations – Udwartana, Parisheka, Hridaya seka, Hridaya pichu, Shirodhara, samvahana, Shiropichu, Virechana, Basti	20 hrs
Unit 6	Yoga, Pranayama, Meditation Exercise therapy	20 hrs

Reference books:

Sl no.	Name of Authors	Title of the Book	Latest Edition	Name of the Publisher
1	Jadavaji Trikamaji Acharya	Charaka samhita, Chakrapanidatta virachita	Ed5 2001	Choukhamba Publishers
2	Jadavaji Trikamaji Acharya, Narayanram Acharya	Susruta samhita, Dalhana virachita	Ed7 2002	Chaukhambha Sanskrit Sansthan

3	Dr. Anna Moreshwar Kunte Krishnashastry Navare	Ashtanga Hridaya, Arunadatta virachita	Ed9 2002	Choukhamba Orientalia
4	Dr. D V Pandit Rao Ayodhya Pandeya	Ashtanga Sangraha	Ed 4 1991	Moulik
5	Dr. V. B. Athavale	Cardiology in Ayurveda	Ed 1 1999	Chaukhambha Sanskrit Pratishtan
6	Mukundilal dwivedi	Ayurvedeeya Panchakarma	Ed2 2008	Chaukhambha Sanskrit Sansthan
7	Sridhar Kasture	Panchakarma vijnana	Ed6 1999	Sri Vaidyanath Ayurveda Bhavan
8	G. Sreenivasa Acharya	Illustrated panchakarma	Ed1 2009	Chaukhambha Sanskrit Sansthan
9	P. Yadaiah	Clinical Panchakarma	Ed1 2005	Jaya bPublications
10	Dr. Gyanendra Pandey	Dravyaguna Vignana	Ed 2 2002	Krishnadas Academy
11	P.K Warriar, VPK Nambiyar, C Ramanakutty	Indian Medicinal Plants	Ed 4 2002	Orient Longman
12	Dr. Mngalagouri Rao	Swasthavrittha	Ed 1 2007	Chaukhamba orientalia
13	Gerard J. Tortora Bryan H. Derrikson	Principles of Anatomy & Physiology Vol- 2	Ed 12 2009	John wiley & sons
14	B. D. Chourasia	Human Anatomy Vol 1	Ed 5 2010	CBS Publishers
15	G. J. Romanes	Cunningham's Manual of practical Anatomy, Vol 2	Ed 15 2000	
16	Gyton & Hall	Medical Physiology	Ed 11 2008	Elsevier
17	Longo, Fauci, Kasper, Hauser, Jameson Loscalzo	Harrison's Principles of Internal Medicine, Vol 2	Ed 18 2012	Mc. Graw Hill
18	Kanu Chatargee, Mark Andreson, Donald Heistad, Richard E. Kerber	CARDIOLOGY –an Illustrated text book	Ed 1 2013	Jaypee Brothers Medical publishers
19	Michael Swash	Hutchison's Clinical methods	Ed 22 2007	ELBS
20	Lynn S. Bikley Peter G. Szilagyi	Bates Guide to Physical examination	Ed 9 2007	Lippincott Williams & Wilkins
21	Andrew R. Houghtan David Gray	Making sense of ECG	Ed 2 2003	Arnold
22	John R. Hompton	150 ECG Problems	Ed 2 2003	Churchil Livingstone