

# Institute of Indigenous Medicine University of Colombo



Bachelor of Ayurveda Medicine and Surgery (BAMS)

**COURSE UNIT SYSTEM** 

Rules and Regulations Course Curriculum 2011



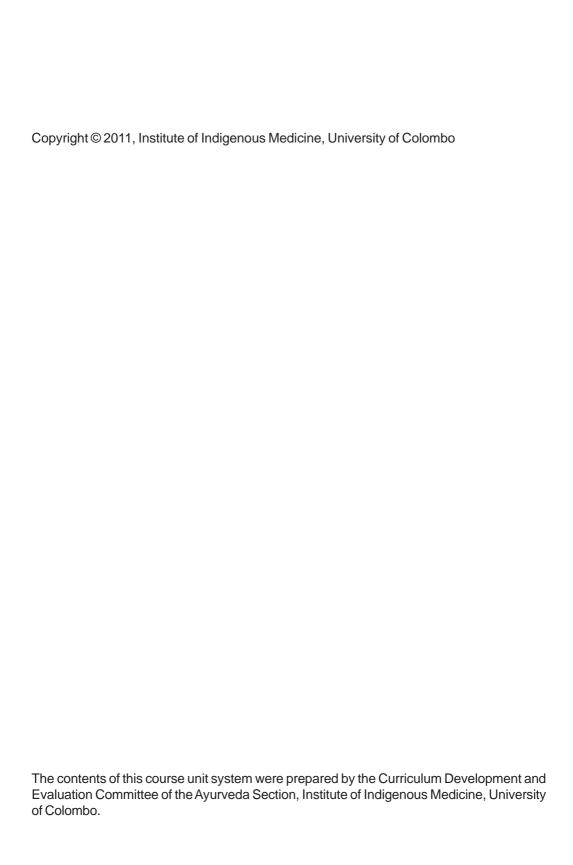
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#### VISION STATEMENT OF THE INSTITUTE

The Vision of the Institute of Indigenous Medicine is to be the centre of excellence in the field of Ayurveda, Unani, Traditional Medicine and of Allied sciences in training, education, clinical, and research in Sri Lanka and beyond at its best.

#### MISSION STATEMENT OF THE AYURVEDA SECTION

The Mission of the Ayurveda Section is to produce competent Ayurvedic graduates who can provide a better service to achieve the highest standards of health by creating a disease free society by promoting, preventing, preserving and treating the sick while delivering primary health care services in strict accordance with the guidelines, strategies and methodologies of Ayurveda, Traditional and Allied systems of medicine.

# **History of the Institute**

The idea of establishment of an institute for indigenous medical system and development came into being as a result of the freedom movement that took place even before the country obtained its sovereignty. Preservation of most of the traditional knowledge in various fields had been neglected during the foreign rule and this fact ushered national movements to come into the front clamoring for the revival. Traditional medical knowledge was one among those that needed remuneration. With those aspirations in mind several patriots took steps to establish an association named, "The Sinhalese Medical Association" in the year 1891.

As its immediate goals, the said association identified the necessity to uphold the oriental medical system and to protect the professional respectability of those who engaged in practicing those systems of medicine. In the year 1901 the establishment of "Sri Lanka Vaidya Maha Mandalaya" appeared with an array of similar objectives of its predecessor. Again in 1915 an association called "Sri Lanka Samajayeya Prathisanskarana Sangamaya" had been founded and along with this very august union a fund had been proclaimed with the aim to provide necessary financial assistance to those who were keen to enhance their academic knowledge on traditional medicine, including, Ayurveda, Siddha, and Unani. Many eminent personalities of the day such as Sir Solaman Dias Bandaranayake, Donald Ubhayasekara and Ananda Kumaraswami took the initiative in creating the fund called "Peradiga Vaidya Vidya Aramudala" which is historical. The Committee of Swadeshiya Medical System in 1926 proposed for the first time that a college should be started with an adjoining teaching hospital to give training to students who wish to pursue this system. Through a memorandum they took steps to bring this matter before the Parliament (Rajya Manthrana Sabhawa) which they fully endorsed and appointed an advisory council in the name of "Lanka Ayurveda Sammelena Sabha" in 1928 as Mr. K. Balasingham as its Chairperson. The above mentioned development could be regarded as monumental in the recent past history of Ayurveda and Traditional Medicine.

Through these governmental mediation, then government of Sri Lanka effectively provided its official recognition in addition to the fact that the system of education pertaining to oriental medical system which came under the purview of the government.

It also signifies a system of education that principally deviated from the accepted educational principles which were based purely on modern scientific ideology by that time.

The Institute was inaugurated on the 10th of June 1929 by the Governor General of Ceylon, Sir Herbert Stanley in the "Bauer" building at Cotta Road, Borella. At the ceremonial opening speech, Mr. K. Balasingham who was the Chairperson of the Advisory Board, stated that the objective of this College is to train those who wish to practice the systems of Indigenous Medicine.



In 1929 the Unani Section was established along with the Ayurveda and Siddha sections at the College of Indigenous Medicine due to the untiring efforts of Dr. K. Balasingham, Dr. M. A. Ahamed and Dr. H. M. Jaffer.

The next milestone in the field of indigenous medical system and its academic parlour was the introduction of the Indigenous Medical Ordinance of No.17, 1941. Under this act an advisory board was established to administer the functioning of the College. This "Ayurvedic Advisory Board" and the "College and Hospital Board" worked partaking to the principles of the teaching and training of the College. Hon. S. W. R. D. Bandaranaike, the Minister of Health and the Chairman of Indigenous Medical Advisory Council brought Indigenous Medical Ordinance with the main

aim to upgrade the quality of teaching at the College to the National standard. It helped shape the mode of teaching integrated with modern science. Ayurveda Act No. 31 of 1961 was an improved version of the above. In order to improve the Ordinance quality of Ayurveda system of medicine, four statutory boards were created by this Act, namely Ayurvedic Medical Council, the College and Hospital Board, Ayurvedic Research Committee and Ayurvedic Drug Formulary Committee.



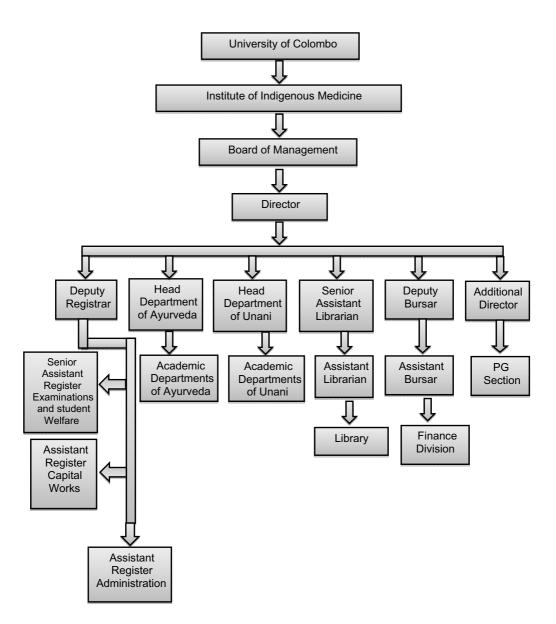


In the year 1977, the College of Indigenous Medicine was absorbed to the University of Colombo as the Institute of Indigenous Medicine.

At present, the Institute of Indigenous Medicine conducts Bachelor's Degree courses as well as Postgraduate Degree programmes in Ayurveda, Unani and Traditional Medicine. As for the curriculum reforms, this institute possesses a very encouraging record. Original curriculum prepared in the year 1929 was repeatedly reviewed in 1934, 1941, 1961, 1964, 1965, 1966, 1972 and at 1974, 1982 ending with the current curriculum implementation in the year 2011.



# Organizational Structure of the Institute



# The Board of Management of the Institute

- 1. Dr. R. A. Jayasinghe, Director, Institute of Indigenous Medicine
- 2. Mr. P. G. Jayasinghe, Additional Secretary, Ministry of Higher Education
- 3. Mr. Somarathna Widanapatirana, Senior Assistant Secretary (Administration), Ministry of Healthcare and Nutrition
- 4. Mr. P. S. K. R. Weerakoon, Commissioner of Ayurveda
- 5. Dr. H. L. Obesekara, Director, Bandaranike Memorial Ayurveda Research Institute
- 6. Dr. D. H. Tennakoon, Acting Director, Ayurveda Teaching Hospital
- 7. Prof. Rohan W. Jayasekara, Dean, Faculty of Medicine, University of Colombo
- 8. Dr. D. P. A. Dissanayake, Head, Department of Ayurveda, Institute of Indigenous Medicine
- 9. Dr. B. M. Nageeb, Head, Department of Unani, Institute of Indigenous Medicine
- Dr. Panduka Karunanayake, Department of Clinical Medicine, Faculty of Medicine, University of Colombo
- 11. Dr. Chrishantha Weerasinghe, Department of Community Medicine, Faculty of Medicine, University of Colombo
- 12. Dr. A. M. Heennilame, Member of Ayurveda Medical Council
- 13. Mr. R. H. M. Piyasena, UGC Nominee
- 14. Dr. A. G. Nimal Jayasinghe, UGC Nominee
- 15. Dr. Sunil Atapattu, UGC Nominee
- 16. Dr. (Mrs.) P. M. Chandrasiri, UGC Nominee
- 17. Dr. A. M. Aboothahir, UGC Nominee
- 18. Dr. Upali Seneviratne, UGC Nominee
- 19. Dr. M. M. P. Premakumara, UGC Nominee, Additional Secretary, UGC
- 20. Mr. P. A. Abeysekara, Deputy Secretary to the Treasury, Ministry of Finance and Planning, General Treasury
- 21. Mrs. I. K. K. Wijekoon, Senior Assisstant Registrar, Institute of Indigenous Medicine (Secretary)

#### OFFICERS OF THE INSTITUTE OF INDIGENOUS MEDICINE

**Director** Dr. R. A. Jayasinghe

011 2861399

Additional Director (Postgraduate) Prof. A. P. G. Amarasinghe

011 2889793

**Head, Ayurveda Section** Dr. D. P. A. Dissanayaka

011 2687215

**Head, Unani Section** Dr. B. M. Nageeb

011 2873484

Senior Assistant Registrar Mrs. I. K. K. Wijekoon

011 5679709

**Deputy Bursar** Mr. S. Seneviratne

011 2888213

Assistant Bursar Mr. H. M. D. Punchibanda

Senior Assistant Librarian Mrs. C. K. Gamage

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**Assistant Librarian** Mrs. P. M. Ayomi

Senior Student Counselor Dr. W. M. S. S. K. Kulathunga

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Institute Medical Officer Dr. D. P. A. Dissanayaka

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**Hostel Wardens:** 

Warden (Girls Hostel) Dr. S. D. Hapuarachchi

0714 213832

Warden (Boys Hostel) Dr. T. D. N. Karunaratne

0713 006653

#### **HEADS OF DEPARTMENTS**

Maulika Siddhantha Dr. I. G. P. R. Kulanatha

**Dravyaguna Vignana** Dr. S. K. M. K. Herapathdeniya

Swasthavrittha Dr. T. D. N. Karunaratne

**Kaya Chikitsa** Dr. K. R. Weerasekara

**Deshiya Chikitsa** Dr. W. M. S. S. K. Kulathunga

**Prasutitantra Kaumarabhritya** Prof. A. P. G. Amarasinghe

Shalya Shalakya Dr. D. P. A. Dissanayaka

Allied Sciences Dr. P. R. Waratenna

#### MEMBERS OF THE ACADEMIC STAFF

#### DEPARTMENT OF MAULIKA SIDDHANTHA

#### R. S. Jayawardhana

DAMS (Sri Lanka), MD Ay (India) Senior Lecturer Grade I

#### M. W. S. J. Kumari

BAMS (Sri Lanka), MD Ayu (India) Senior Lecturer Grade II

#### K. B. Jayawardhana

BA, MA (Sri Lanka), PhD (India) Senior Lecturer Grade II

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#### J. M. Dahanayaka

BAMS, MPhil (Sri Lanka) Lecturer

#### N. D. Kodithuwakku

BAMS, MSc (Sri Lanka) Lecturer

#### **DEPARTMENT OF SWASTHAVRITTA**

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#### DEPARTMENT OF KAYA CHIKITSA

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DAMS (Sri Lanka), MDAy (India) Senior Lecturer Grade I

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#### K. I. W. K. Somarathna

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BAMS (Sri Lanka) Probationary Lecturer

#### DEPARTMENT OF PRASUTITANTRA KAUMARABHRITYA

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DAMS (Sri Lanka), MDAy, PhD (India), Post Doctoral Research Fellow (England) Professor

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#### Y. D. Karunaratne

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#### DEPARTMENT OF SHALYA SHALAKYA

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#### S. V. Kamal

DAMS (Sri Lanka), MSAy (India) Senior Lecturer Grade I

#### D. A. R. Sakunthala

BAMS (Sri Lanka), MSAy (India) Senior Lecturer Grade II

#### D. P. A. Dissanayaka

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#### I. A. M. Leena

BAMS (Sri Lanka) Probationary Lecturer

# **DEPARTMENT OF ALLIED SCIENCES**

#### P. R. Waratenne

BAMS (Sri Lanka), MDAy (India) Senior Lecturer Grade II

#### M. R. M. Wikramasinghe

BAMS (Sri Lanka) Probationary Lecturer

#### Y. S. G. Wimalasiri

BAMS (Sri Lanka) Probationary Lecturer

#### Rasika Ileperuma

BDS (Sri Lanka) Probationary Lecturer

#### Jayantha Jayatissa

MBBS (Sri Lanka) Probationary Lecturer



# **Admission Requirements**

- a) G. C. E. (Advanced Level) in Bio-Science Stream and should be in conformity with the criteria recommended by the University Grants Commission for the admission to the university.
- b) Students who wish to read for the Bachelor's degree in Ayurveda Medicine and Surgery should not suffer from any mental or physical disability that may hinder the duties of the Medical Profession. Students are required to prove themselves as physically and mentally fit after a medical examination. The medical examination will be conducted by the Institute.

# **Admission of Foreign Students**

Foreign students are accepted for degree programme under the guidelines of the University Grants Commission.



# COURSE UNIT SYSTEM OF THE INSTITUTE OF INDIGENOUS MEDICINE

#### The meaning of some of the frequently used terms

#### Semester

The academic programme is based on the semester system with two semesters per year. Each semester consists of 15 weeks of academic activities and assessment period. Each course is taught and assessed within the same semester.

#### Course unit

This is a complete course taught within a semester with one or more contact hours per week. A contact hour is defined as an hour of lectures, practicals, tutorial etc.

#### Levels

The academic programme is organized at five levels namely, Level I, Level II, Level IV, and Level V, which represent respectively the first year, second year, third year, fourth year, and fifth year of study.

The general year plan for a single level under this scheme is shown below.

Semester 1	Semester 2
First half – 08 weeks	First half – 08 weeks
Mid semester break – 01 week	Mid semester break – 01 week
Second half – 07 weeks	Second half – 07 weeks
Study leave – 02 weeks	Study leave – 02 weeks
Examination – 05 weeks	Examination – 05 weeks
Vacation – 02 weeks	Vacation – 04 weeks

#### Credit

The abstract value assigned to a course unit on the basis of contact hours per week is called a credit. One credit unit is equivalent to either 15 hours of lectures or 30 hours of practical (clinical/labortory/tutorials/field visits). A series of digits with in parenthesis following the course code indicate the number of lecture hours and practical hours.

e.g. A 2 credit course containing 15 hours of lectures and 30 hours of practicals will be denoted as (2:15/30).

#### **Grade Point**

The range of marks is partitioned into a sequence of suitable sub range and the sub ranges are designated by the symbols A+, A, A-, B+, B, B-, C+, C, C-,D+, D and E. These are called grades and grade points are assigned according to the following table:

Range of Marks	Grades	Grade Point value
85-100	A+	4.0
70-84	А	4.0
65-69	A-	3.7
60-64	B+	3.3
55-59	В	3.0
50-54	B-	2.7
45-49	C+	2.3
40-44	С	2.0
35-39	C-	1.7
30-34	D+	1.3
25-29	D	1.0
0-24	Е	0.0

# **Grade Point Average (GPA)**

The overall performance of the students is assessed by calculating the Grade Point Average (GPA). All course units are weighted according to their corresponding credit values. GPA is the weighted mean of Grade Points obtained by a student for course he/she has offered. GPA shall be computed to the second decimal place and is an indicator of the academic performance of the student. Grades of all registered course units in a study programme are taken into account when calculating the GPA.

## The Degree Structure

The degree programme is based on the course unit system consisting of compulsory subject course units and optional course units. Each course unit has a number of credits assigned to it depending on the course.

The name of the degree is **Bachelor of Ayurveda Medicine and Surgery (BAMS).** This Course of study spreads over a period of 5 years with one year internship. The degree will be awarded upon the successful completion of five year course work and one year internship.

#### **Medium of instruction**

All lectures, practicals, and examinations related to course units will be conducted in English medium. In first and second years, whenever necessary, assistance will be provided in Sinhala medium.

## Objectives of the Degree Programme

At the completion of BAMS course, the graduates will be able to:

- apply knowledge, skills and attitudes of medical sciences based on Ayurveda and Traditional systems of medicine.
- offer better health services to the public preserving the salient characteristics of Ayurveda and Traditional systems of medicine within the framework of national health system to suit the needs of present society.
- manufacture Ayurvedic and Traditional medicines by applying knowledge of conventional methods and modern technology with the maximum utilization of local resources based on Good Manufacturing Practices.

- 4. identify and manage medical emergencies along with Ayurvedic curative and managerial procedures and to refer patients to obtain suitable treatment.
- 5. maintain the highest standards of professionalism as prescribed in legal medicine.
- 6. carry out research on Ayurveda and Traditional Systems of Medicine.
- 7. train Ayurvedic para-medical personnel.





# Subjects offered

Subject course units are offered by eight academic departments of the institute namely, Maulika Siddhantha, Allied Sciences, Dravyaguna Vignana, Kaya Chikitsa, Swasthavrittha, Shalya Shalakya, Prasutitantra Kaumarabhrithya, and Deshiya Chikitsa. These departments offer 23 different subjects. In addition, English language and computer awareness programmes are offerd by Language Centre and IT Centre of the Institute.

# **Academic Programme**

#### **Course notation**

The course notation includes a two letter abbreviation denoting the name of the department of study, followed by a four digit number of which the first digit represents the year of study, the second digit the semester of the year, the third and fourth digits the serial number of the course unit.

eg. MS1103 denotes the third course unit offered by the Department of Maulika Siddhantha in the first semester of the first year.

The abbreviations used to denote the eight departments of study are as follows:

Name of the Department	Abbreviation
Department of Maulika Siddhantha	MS
Department of Allied Sciences	AS
Department of Dravyaguna Vignana	DV
Department of Kaya Chikitsa	KC
Department of Swasthavrittha	SW
Department of Shalya Shalakya	SS
Department of Prasutitantra Kaumarabhritya	PK
Department of Deshiya Chikitsa	DC

#### ALLOCATION OF COURSES UNDER THE DEPARTMENTS

# 01. Department of Maulika Siddhantha (Department of Basic Principles of Ayurveda)

- 1. Ayurveda Ithihasa (History of Ayurveda)
- 2. Padartha Vignana (Ontology)
- 3. Ayurveda Muladharma (Fundamentals of Ayurveda)
- 4. Sanskrit

Optional subject

Jyotisa Muladharma (Principles of Astrology)

# 02. Department of Dravyaguna Vignana (Department of Ayurveda Pharmacology and Pharmaceutics)

- 1. Dravyaguna Vignana (Ayurveda Pharmacology)
- 2. Rasa Shastra (Alchemy)
- Bhaishajjya Kalpana (Ayurveda Pharmaceutics)
   Optional subjects
  - Functional Foods and Nutraceuticals
  - Cultivation and Propagation of Medicinal plants
  - Pharmacovigilance and Drug Safety
  - Phytomedicine and Ethnopharmacy

# 03. Department of Swasthavrittha (Department of Ayurveda Community Medicine)

- 1. Swasthavrittha (Ayurveda Community Medicine)
- 2. Research Methodology and Bio Statistics

Optional subjects

- Ayurveda Roopalavanya
- Medical Sociology
- Health Management
- Health Tourism
- Yoga and Meditation

# 04. Department of Kaya Chikitsa (Department of Ayurveda Clinical Medicine)

- 1. Nidana Muladhrma (Fundamentals of Etiopathogenisis and Diagnosis)
- 2. Chikitsa Muladharma and Panchakarma (Fundamentals of Therapeutics and Panchakarma)
- 3. Kaya Chikitsa (Ayurveda Clinical Medicine)

Optional subjects

- Massage Therapy
- Manasa Roga Muladharma (Principles of Psychiatry)
- Aroma Therapy

## 05. Department of Shalya Shalakya (Department of Ayurveda Surgery)

- 1. Shalya Tantra (Ayurveda Surgery)
- Shalakya Tantra (Ayurveda ENT and Opthalmology) Optional subject
  - Accupunture

# 06. Department of Prasutitantra Kaumarabhritya (Department of Ayurveda Gynecology, Obstetrics and Paediatrics)

- 1. Balaroga (Ayurveda Paediatrics)
- Streeroga and Prasava Vignana (Ayurveda Gynecology and Obstetrics)Optional subject
  - Reproduction and Genetics

# 07. Department of Deshiya Chikitsa (Department of Indigenous Systems of Medicine)

- 1. Deshiya Chikitsa (Sri Lankan Traditional Medicine)
- Agadatantra (Ayurveda Toxicology)Optional subject
  - Traditional Chinese Medicine

#### 08. Department of Allied Sciences

- 1. Rachana Shareera (Anatomy)
- 2. Kriya Shareera (Physiology)
- 3. Vikriti Vignana (Pathology)
- 4. Roga Vignana (Principles of Clinical Medicine)
- Adhikarana Vaidya (Legal Medicine)
   Optional subjects
  - Principles of Bio Feedback
  - Principles of Molecular Biology

#### Language Unit

- 1. English
- 2. Other languages: Sinhala, Tamil, Hindi, German, Japanese, Chinese etc.

# **Information Technology Centre**

1. Basic, Intermediate and Advanced IT courses

## **Programme Structure**

This ten semester degree programme comprises of core programme jointly offered by the eight departments of study. The core programme consists of 195 credit units including the research project.

To be eligible for the award of the BAMS degree a student should complete a minimum of 195 credit units during five academic years. The credit unit requirement should include the following;

- a) 181 credit units from the compulsory course units of the core programme.
- b) The rest of the credit units should be selected from the optional course areas.

In addition to above mentioned credited courses, a set of foundation courses are offered to impart satisfactory proficiency in English and Information Technology. While these courses are not credited for the degree programme, it is mandatory for every student to pass the foundation courses for the completion of the degree programme. Certificates will be awarded for English and Information Technology, upon successful completion.

There will be a research project of six credit units to be completed in the 8th semester.

# **Registration for Courses**

Registration for an academic year commences one week prior to the start of the first semester and continues during the first two weeks. Selection of optional course units at Level II and IV must be done very carefully as students will not be permitted to change their selections once the registration period is over. Optional course units having less than five students will not be conducted and students who have registered for such course units are permitted to register for another available course units during the registration period.

# **Eligibilty for Subsequent Level**

Students are required to meet the eligibility in each level in order to proceed to the subsequent level. If a student fails to meet the eligibility he/she will not be permitted to register for the subsequent level. The students who have not met the eligibility should repeat the particular course units until he/she meets the eligibility.

A student should obtain a minimum GPA of 2.00 at the previous level to be eligible to the subsequent level.

## **Evaluation Procedure**

Each course unit will be evaluated by Continuous Assessment (CA) and an end semester examination which consist of a written examination, practicals, assignments, presentations, and viva-voce examination or a combination of any of the above. The method of evaluation of course units will be announced by the relevant department at the beginning of each semester.

The results of first, second and third level examinations will be released within 6 weeks of completion of the examinations. Fourth and final year examination results will be released within 8 weeks of completion of examinations.

#### Written Examination

The theory component of a course unit will be assessed by an end semester written examination. The duration of this examination will vary according to the number of credit units as follows:

1 Credit unit 1 hr 2 Credit units 2 hrs >2 Credit units 3 hrs

# Guidelines for the structure of the question papers

#### **One Hour Question Paper**

Q.type	No.	Duration	marks
Structured	2	½ hr	40%
Essay type	1	½ hr	60%

#### **Two Hour Question Paper**

Q.type	No.	Duration	marks
MCQ	15-30	½ hr	30%
Structured	2	½ hr	30%
Essay type	2	1 hr	40%

# **Three Hour Question Paper**

Q.type	No.	Duration	marks
MCQ	15-30	½ hr	20%
Structured	6	1 ½ hr	40%
Essay type	2	1 hr	40%

# Continuous Assessment (CA)

CA will be conducted in addition to end semester examinations. The guidelines for CA will be prepared by the department concerned. Specific time determined by the lecturer will be given in order to complete and submit the CA. Students are requested to complete and submit all the CAs in order to sit for the end semester examinations. 80% of marks will be given for the end semester examination of the respective academic level. 20% will be added for the final marks from the Continous Assessment in the each respective end semester examination.

# **Practical Examinations of the Degree Programme**

The practical components of the course unit will be evaluated by an end semester examination. Viva-voce examinations are also a component of the practical evaluation as shown in following table. The proportion of marks allocated for causes that include practical will be weighted according to the credit units of practical and theory offered in the course. The examination will be conducted according to the guidelines prepared by the Department and approved by the Ayurveda Sectional Committee.

#### **Evaluation Methods of Course Units**

#### **Compulsory Subjects**

Subject	Ме	thod of E	valuation	า
	CA	W	Р	V
Ayurveda Itihasa (History of Ayurveda)	<b>V</b>	V		
Padartha Vignana(Ontology)	V	V		V
Ayurveda Muladharma(Fundamentals of				V
Ayurveda)				
Sanskrit	$\sqrt{}$	$\sqrt{}$		
Rachana Shareera (Anatomy)	$\sqrt{}$	$\sqrt{}$		
Kriya Shareera (Physiology)	V	V	V	V
Dravyaguna Vignana(Ayurveda Pharmacology)	V	V	√	<b>V</b>
Rasa Shastra(Alchemy)	√	V	V	V
Bhaishajjya Kalpana(Ayurveda Pharmaceutics)		$\sqrt{}$	V	V
Swasthavrittha(Ayurveda Community Medicine)		$\sqrt{}$	V	V
Research Methodology and Bio Statistics	V	V		
Nidana Muladhrma (Fundamentals of	<b>V</b>	V	V	<b>V</b>
Etiopathogenisis & Diagnosis)				
Chikitsa Muladharma & Panchakarma	$\sqrt{}$			√
(Fundamentals of Therapeutics & Panchakarma)				
Kaya Chikitsa( Ayurveda Clinical Medicine)	√	V	V	V
Shalya Tantra (Ayurveda Surgery)	√	V	V	V
Shalakya Tantra (Ayurveda ENT &	$\sqrt{}$			
Ophthalmology)		,		
Balaroga (Ayurveda Paediatrics)	√	V	V	V
Streeroga and Prasava Vignana (Ayurveda	$\sqrt{}$	$\sqrt{}$	V	
Gynecology Obstetrics)	,			
Deshiya Chikitsa( Sri Lankan Traditional Medicine)	√	V	V	V
Agadatantra (Ayurveda Toxicology)	<b>√</b>	√	V	V
Vikriti Vignana (Pathology)	√	V	V	V
Roga Vignana (Principles of Clinical Medicine)	<b>√</b>	V	V	V
Adhikarana Vaidya	√	√	√	√

# **Optional Subject**

Subject	Method of Evaluation			
	CA	W	Р	V
Jyotisa Muladharma(Principles of Astrology)				
Functional foods and Nutraceuticals			$\sqrt{}$	
Cultivation and Propagation of medicinal plants				
Pharmacovigilance and Drug safety			$\sqrt{}$	
Phytomedicine and Ethnopharmacy			$\sqrt{}$	
Principles of Bio Feedback			$\sqrt{}$	
Principles of Molecular Biology			$\sqrt{}$	
Ayurveda Roopalavanya	V	V	<b>√</b>	
Medical Sociology	V	V		√
Health Management	V	V		$\sqrt{}$
Health Tourism				
Yoga & Meditation			$\sqrt{}$	
Massage Therapy			$\sqrt{}$	
Aromatherapy		V		
Manasa Roga Muladharma (Principles of	V	V		V
Psychiatry)				
Acupuncture				
Reproduction and Genetics	$\sqrt{}$	$\sqrt{}$		
Traditional Chinese Medicine	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$

#### **Foundation Course**

Subject	Method of Evaluation		1	
	CA	W	Р	V
English	V	V		
Basic, Intermediate and Advanced IT courses	V	V	V	

CA = Continuous Assessment

W = Written

P = Practical

V = Viva- voce

# **Research Project**

At the beginning of the 4th year students should register for a research project worth of 6 academic credits and should complete in 8th semester. The selection of the research project, supervising and the evaluation will be done by the respective department of study under the supervision of the Head of Ayurveda Section.

Research project will be assessed continuously and marks will be allocated as follows:

Preparation of project proposal	10%
Conducting the research project	20%
Seminar presentation	20%
Final project report	50%

# Assignment of Grades, Grade Point and GPA

The grade submitted by the lecturer will be reviewd by a three member committee comprising of the Head of the Ayurveda Section, Head of the Department concerned, and lecturer concerned.

GPA is determined by dividing the total credit-weighted grade point value ( $\Sigma$  Cq) by the total number of Credits ( $\Sigma$  C).

$$\mathsf{GPA} = \Sigma \; \mathsf{Cg} \; / \; \Sigma \; \mathsf{C}$$

e.g., a student who has completed a course of four subjects each 4 credits and two subjects each of 2 credits with grades of A+, C+, B, C+, A and B respectively would have the GPA.

GPA = 
$$4 \times 4.0 + 4 \times 2.3 + 4 \times 3.0 + 4 \times 2.3 + 2 \times 4.0 + 2 \times 3.0$$
  
 $4 + 4 + 4 + 4 + 2 + 2$   
 $16 + 9.2 + 12 + 9.2 + 8 + 6$   
 $20$   
GPA =  $3.02$ 

3.02

# Other Type of Grade

**Grade I:** A grade "I" may be given, if the student was unable to complete the course unit due to acceptable reasons and the work in the course unit is sufficiently completed and of good quality. Records should be kept in the respective department regarding the reasons for this grade and a scheme for its removal.

A student should remove the grade "I" with in one year of its recording. If the student fails to upgrade the grade "I" at least to a grade C, with in the stipulated time, the Head of the Ayurveda section will declare that it is changed to a grade E. If the grade I was given because the student was unable to sit the final examination, he/she may be allowed to upgrade it by sitting the examination at a later stage with the approval of the relevant lecturer in consultation with the department.

#### **Attendance**

Students must attend all lectures and practical classes of all course units. 75% of attendance is required for lectures and practical classes to sit for corresponding examinations. Students who do not have the required attendance for lectures and practical classes will not be allowed to sit for the corresponding examination and should sit for the examination in the next scheduled examination as a repeat candidate.

# **Repeat Examinations**

A student who obtained a grade below 'C' in a particular course unit may re-sit the examination in respect of that course unit for the purpose of improving the grade. The maximum number of repeat attempts of the course unit shall be two (2). All 'E' grades should be improved at the first available opportunity. The maximum grade for repeated course unit shall be 'C'.

# **Medical Certificates**

A student who is unable to appear in the examination due to a medical reason should inform the Deputy Registrar (Exam) within 72 hours. If the student could not appear for the examination due to medical reasons he should submit a valid medical certificate within 10 working days through Medical Officer of the Institute.

The medical certificate is valid only for the respective period stipulated in the medical certificate. If the medical certificate is more than 14 days, that should be endorsed by the District Medical Officer of the relevant area or Medical Officer of the Institute.

When a student produces medical certificate more than once he or she should appear before a Medical Board appointed by the Institute. The report of the Board will be submitted to the Ayurveda Sectional Committee. The decision of the Ayurveda Sectional committee is final.

# **Duration for Completion of Degree Programme**

Students should complete their degree programme within a specific number of semesters. The maximum period allowed for the completion of the degree is 16 semesters (8 years) from first registration. Students are allowed to repeat examinations subject to the above time limits. Therefore, students are strongly advised to aim to obtain good grades from the very beginning of their programme.



# **Criteria for Awarding Degree**

A student must complete minimum of 195 credits within the stipulated period for the award of the degree. 12 credits of these can be selected from optional course units. In addition, the student must have:

- obtained a minimum GPA of 2.00.
- II. obtained a minimum of C grade at the foundation course units.
- III. obtained a minimum of C grade at each course unit.
- IV. completed the relevant requirements within a maximum period of eight academic years.
- V. completion of one year internship successfully.

#### Note:

- 1 However, a student can be awarded the degree upon completion of the above I-IV criteria on a written declaration by him/ herself that he/she is not willing to undergo internship and that should be recommended by the Board of Management.
- 2 Grades obtained by a student for all the course units offered except for the foundation courses shall be considered in the computation of final GPA.

## **Award of Honours**

A student who has fulfilled all the conditions stipulated in "Criteria for Awarding Degree" should be awarded honours if he/she fulfills the following additional criteria.

## **First Class**

A student shall be awarded First Class Honours, if he/she fulfills the following requirements:

- An overall minimum GPA of 3.70.
- II. At least two Grade A in each level course units and at least Grade C for the remaining course units.
- III. Complete the above requirements within five consecutive years.

# Second Class (Upper Division)

A student shall be awarded Second Class (Upper Division) honours, if he/she fulfills the following requirements:

- I. An overall minimum GPA of 3.30.
- II. At least two Grade B in each level course units and at least Grade C for the remaining course units.
- III. Complete the above requirements within five consecutive years.

# Second Class (Lower Division)

A student shall be awarded Second Class (Lower Division) honours, if he/she fulfills the following requirements:

- An overall minimum GPA of 3.00.
- II. At least two Grade B in each level course units and at least Grade C for the remaining course units.
- III. Complete the above requirements within five consecutive years.

# **Conferment of Degree**

After fulfilling all the requirements the Institute on the recommendation of the Board of Management shall recommend the student to the University Senate for the conferment of the degree.

# **Entries in the Transcript**

Course units with the corresponding grades and grade points obtained will appear in the transcript. E grades which have been upgraded will not appear but the credit earned of the repeat course will appear under the particular semester when the unit was completed with a label (R) to indicate that the course was repeated. The final GPA and the class will also appear in the transcript. The transcript will be issued upon application and the payment of a prescribed fee.

# **Internship Training**

The internship training programme is expected to equip the undergraduates with knowledge, skills and attitudes required to be completed to function as a medical professional. This internship is prerequisite for registration at the Sri Lanka Ayurvedic Medical Council as a medical practitioner.

However, a student can be awarded the degree upon completion of the level-5 on a written declaration made by him/herself that he/she is not willing to undergo internship training. Such request shall be approved by the Board of Management and the copy of the decision of the Board of Management should be made available to the Sri Lanka Ayurveda Medical Council.

## **Period of Internship**

- Nine months of his/her training should be obtained at various Ayuvedic hospitals and the remaining three months under two traditional physicians in specialized subjects.
- At the end of internship the student should produce a certificate to the Director of the Institute of Indigenous Medicine issued by the Commissioner of Ayurveda to the effect that he has successfully completed his internship.
- The Board of Management of the Institute shall recommend the candidate to the Senate of the University of Colombo stating his eligibility for the conferment of the BAMS degree.
- 4. If the student is unable to complete the internship due to unavoidable circumstances, he/she should complete that within a period of two years failing which he shall be considered as not eligible for Registration as an Ayurvedic Physician with the Sri Lanka Ayurvedic Medical Council.



Summary of the structure of the degree programme is given in the following table. The details of the courses offered during the core programme are given subsequently.

# Course Sequence of the Core Programme – BAMS

# **Compulsory Subjects**

Course code	Course unit	No. of credits	Total credits per semester
MS1101 MS1102 MS1104 AS 1101	Ayurveda Muladharma (Fundamentals of Ayurveda) – I Ayurveda Ithihasa (History of Ayurveda) Sanskrit – I Shareera Rachana (Anatomy) – I	3 2 3 3	17
AS 1102 DV1101	Shareera Kriya (Physiology) – I Dravyaguna Vignana (Ayurveda Pharmacology) – I	3	
MS1201 MS1203 MS1204 AS1201 AS1202 DV1201	Ayurveda Muladharma (Fundamentals of Ayurveda) – II Padarta Vignana (Ontology) Sanskrit – II Shareera Rachana (Anatomy) – II Shareera Kriya (Physiology) – II Dravyaguna Vignana (Ayurveda Pharmacology) – II	2 3 4 3 4 3	19
AS 2101 AS 2102 DV2101 SW2101 MS2104	Shareera Rachana (Anatomy) – III Shareera Kriya (Physiology) – III Dravyaguna Vignana (Ayurveda Pharmacology) – III Research Methodology & Bio Statistics – I Sanskrit – III	3 3 4 1 4	15
AS 2201 AS 2202 DV2201 SW2201 MS2204	Shareera Rachana (Anatomy) – IV Shareera Kriya (Physiology & Biochemestry) – IV Dravyaguna Vignana (Ayurveda Pharmacology) – IV Research Methodology & Bio Statistics – II Sanskrit – IV	4 4 3 1 3	15
KC3101 KC3102 AS 3103 DV3102 DV3103 SW3102	Nidana Muladharma (Fundamentals of Diagnosis) – I Chikitsa Muladharma and Panchakarma (Fundamentals of Therapeutics and Panchakarma – I Vikriti Vignana (Pathology) – I Rasa Shashtra (Alchemy) – I Bhaisajya Kalpana (Ayurveda Pharmaceutics) – I Swastha Vritttha (Community Medicine) – I	3 3 2 3 4	18
KC3201 KC3202 AS 3203 DV3202 DV3203 SW3202	Nidana Muladharma (Fundamentals of Diagnosis) – II Chikitsa Muladharma and Panchakarma (Fundamentals of Therapeutics and Panchakarma) – II Vikriti Vignana (Pathology) – II Rasa Shashtra (Alchemy) – II Bhaisajya Kalpana (Ayurveda Pharmaceutics) – II Swastha Vritttha (Community Medicine) – II	4 3 3 4 3	21

(Continued)

Course code	Course unit	No. of credits	Total credits per semester
KC4103	Kaya Chikitsa (Ayurveda Clinical Medicine) – I	3	
AS 4104	Principles of Clinical Medicine – I	4	16
DC4101	Desheya Chikitsa (Indigenous Medicine) - I	4	
DC4102	Agada Tantra (Ayurveda Toxicology) – I	3	
AS 4105	Forensic Medicine – I	2	
KC4203	Kaya Chikitsa (Ayurveda Clinical Medicine) – II	5	
AS 4204	Principles of Clinical Medicine – II	4	16
DC4201	Desheya Chikitsa (Indigenous Medicine) - II	4	
DC4202	Agada Tantra (AyurvedaToxicology) – II	2	
AS4205	Forensic Medicine – II	1	
KC5103	Kaya Chikitsa (Ayurveda Clinical Medicine) – III	3	
SS 5101	Shalya Tantra (Ayurveda Surgery) – I	4	
SS 5102	Shalakya Tantra (Ayurveda ENT and Opthalmolgy) – I	4	
PK 5101	Balaroga (Ayurveda Paediatrics) – I	4	19
PK 5102	Stree Roga and Prasuti Tantra (Ayurveda Gynaecology and Obstetrics) – I	4	
KC5203	Kaya Chikitsa (Ayurveda Clinical Medicine) – IV	5	
SS 5201	Shalya Tantra (Ayurveda surgery) and Opthalmolgy) - II	4	19
PK 5201	Bala roga (Ayurveda Paediatrics) – II	4	
PK 5202	Stree roga and Prasuti Tantra (Ayurveda Gynaecology and Obstetrics) – II	6	
MS/AS/ DV/KC/ SW/SS/ PK/DC 4101	Research Project	6	6
Total			181

# **Optional Subjects**

Semester	Subject	No. of credits	Total credits
AS2106	Principles of Bio Feedback	2	
AS 2107	Principles of Molecular Biology	1	
DV2104	Functional foods and Nutraceuticals	1	
DV2105	Cultivation and Propagation of medicinal plants	2	12
DV2106	Pharmacovigilance and Drug safety	2	
DV2207	Phytomedicine and Ethnopharmacology	2	
MS2205	Principles of Astrology	2	
SW4203	Ayurveda Roopalavanya	2	
KC4204	Massage therapy	2	
KC4205	Aroma Therapy	1	20
SW4204	Medical Sociology	2	
DC4203	Principles of Traditional Chinese Medicine	2	
SW4205	Health Management	2	
SW4206	Health Tourism	2	
SW4207	Yoga and Meditation	2	
KC4206	Manasa Roga Muladharma (Principles of Psychiatry)	2	
SS 5103	Accupuncture	2	
PK 5103	Reproduction and Genetics	1	

# **Foundation Subjects**

Course code	Course unit	Credits
EN 1000	English - I	2
EN 2000	English - II	2
IT 1000	Introduction to Computer Application	2
IT 2000	Computer Applications	2

### COURSES OF THE CORE PROGRAMME

# DEPARTMENT OF MAULIKA SIDDHANTHA (DEPARTMENT OF BASIC PRINCIPLES OF AYURVEDA)

# MS1101 Ayurveda Muladharma (Fundamentals of Ayurveda) – I (3:45/00)

### Ayusha Vivarana and Pancha Bhauthika Siddhantha (1:15/00)

Introduction to Ayurveda and Ayusha Vivarana (Description of Ayurveda). Basic principles of Ayurveda, Pancha Maha Bhuta Siddantha, Loka Purusha Samya Siddantha, Tridosha Siddantha and Adhara Bhutha Siddantha.

### Dosha, Dhathu and Mala Vivarana (Description of Tridosha) (2:30/00)

Definitions, interpretations, qualities, normal function, location, varieties, and causes of abnormalities, characteristic features, strategies, of Vata, Pitta and Kapha Doshas.

Modern scientific interpretations of Tridosha Sidddantha. Definitions, interpretations, formation, varieties and their normal and abnormal functions of Sapta Dhatus. Upadhathu and Dhathu Mala, Saara pariksha, and modern scientific analysis. Definitions, interpretations, formation, varieties and normal and abnormal functions and modern scientific analysis of Trimala.

#### **Recommended Texts:**

- 01. Dosha Dhathu Mala Vignana, D. M. R. B. Dissanayake
- 02. Dosha Dhathu Mala Vignana (Hindi), R. R. Patak
- 03. Tridhosha Vimarsha, Upendrea Natha Dasa

# MS1102 Ayurveda Itihasa (History of Ayurveda) (2:30/00)

## History of Indian Ayurveda (1:15/00)

Introduction of Ayurveda and Ashtanga Ayurveda, selection and initiation of the pupil and conduct of the teacher and the physician. Ayurvedavatharana. The support of Indian philosophies to develop fundamentals of Ayurveda. Beginning of ethics, code of conduct, conduct of physician. Pioneer enlighten personalities to develop branches of Ayurveda. Authors of main treatises and their informations. Commentators of Samhita.

### History of Sri Lanka Ayurveda (1:15/00)

Medical information relevant to the different eras in, ancient Sri Lanka. Traditional medicine text in ancient Sri Lanka. Vrikshayurveda and Sathvayurveda in ancient Sri Lanka. Medical information revealed from ancient Literature.

The ways of immigration of other system of medicine to Sri Lanka. The factors that led the deterioration of Ayurveda system of medicine.

Renaissance of Ayurveda, the Institutions and individuals contribution towards it. The traditions and generations of Indigenous Medicine. Educational, research and administrative Institutions of Ayurveda. The Boards and Acts relevant to Ayurveda. The place of Ayurveda in the national health policy of Sri Lanka.

### **Recommended Texts:**

- 1. Lanka Ayurveda Ithihasaya, H.M. Senadheera
- 2. Ayurveda (English), P. B. Wanninayaka
- 3. Ayurveda Ithihasaya, Ariyadasa Kumarasinghe
- 4. Ayurveda Shastahraya, Rev. Kotahene Pagngnatissa

# MS1104 Sanskrit – I (3:45/00)

Alphabet, nouns, devices, general techniques, verb, verbal roots, composition and translation and transliteration. Indeclinable particles and prefixes, adjectives and adverbs, combinations, special uses of cases, voice- active- passive, participles, gerunds and infinitives. Baladarsa.

### **Recommended Texts:**

- 1. Baladarsha
- Charaka Samhitha, Suthra Sthana

# MS1201 Ayurveda Muladharma (Fundamentals of Ayurveda) – II (2:15/30)

# Agni, Swasthya And Roga (1:15/00)

Concept of Agni. Definitions, interpretations, formation, varieties, and importance of Agni. Abnormalities of Agni and modern scientific analysis. Concept of Aama, Definitions, interpretations, varieties, normal and abnormal functions. Concept of Ojas. Ojo dristi. Vyadhi Kshamathva, Prakriti, Kriyakala of Doshas definitions, importance, and conservation of Swasthya (Health).

### Practical of Dosha, Dhatu Mala Vignana (1:00/30)

Swasthya pariksha, Vata Pariksha, Pitta Pariksha, Kapha Pariksha, Tridosha Pariksha, Ama Pariksha, Prakrithi pariksha I (Swasthya), Prakrithi pariksha II (Rogi), Tri mala Pariksha, Agni pariksha, Sara pariksha, Saptha Datu Pariksha, Shad Kriya kala pariksha.

### **Recommended Texts:**

- 1. Dosha Dhathu Mala Vignana, D. M. R. B. Dissanayake
- 2. Dosha Dhathu Mala Vignana (Hindi), R. R. Patak
- 3. Tridhosha Vimarsha, Upendrea Natha Dasa

### MS1203 Padarta Vignana (Ontology) (3:45/00)

### Darshana (Philosophy) and Padartha (1:15/00)

Shad Darshana and Ayurveda, Philosophy of Ayurveda Padartha Vivarana: definition, number, characteristic features, and classification of Dravya, Guna, Karma, Samanya, Vishesa, Samavaya and Abhawa.

# Pramana Vignana and the uses of Padartha Vignana in clinical practice (1:15/00)

Prama, Pramatha, Prameya, accepted Pramanas by various schools. Apthopadesha, Prathyaksha, Anumana, Yukthi, Upamana, Anya Pramana. Thanthra Yukthi and Vada Marga, Sambhasha, Sadvritta, Vaidyavritta, role of Padartha Vignana in clinical practice.

# Karya Karana Bhava and Vividha Vada, Sristi, – Pralaya and Thathva Nirupana (1:15/00)

Karana, Karya, Sath Karya Vada, Asath Karya Vada, Armbha Vada, Vivartha Vada, Kshana Bhanga Vada, Sabhava Vada, Svabhawavoparam Vada, Adaivatha Vada, Parinama Vada. Different notions of Sristi, Pralaya. Thathva Nirupana – Chathur Vimshathi, Pancha Vimshathi Purusha, Ekadhathu, Dvidhathu, Thidhathu Purusha etc, Triguna.

### **Recommended Texts:**

Padartha Vignanaya, K. G. P. Jayathilaka

- 2. Ayurveda Darshana Padartha Vignanaya, D. M. R. B. Dissanayake
- 3. Darshana Vada Sangrahaya, Rev. Baddegama Vimalawansa
- 4. Bharathiya Darshana, Rev. Narammala Dhammarathana

### MS1204 Sanskrit – II (4:60/00)

Charaka Samhita Sutra 1/1-50. Ashtanga Hridaya Samhita Sutra 12 /13 Madawa Nidana 1, Hithopadesha, Vigraha 5 stories.

### **Recommended Texts:**

- 1. Charka Samhitha, Vimana Sthana Chapter 08
- 2. Hithopadesha, Vigraha Kanda
- 3. Ashtanga Hridaya Samhita

### MS2104 Sanskrit – III (4:60/00)

Verbal nouns and secondary derivations and compounds. Potential mood, imperative verbs, perfect tense, causative verbs. Composition and translations. Vaidyajeevaniya 40 slokas, Susruta Uttara Tantra Adhyaya 1. Nitishataka selected 20 slokas.

### **Recommended Texts:**

- 1. Sanskrita Prathama Pustakaya, Ramkrishna Bhandarkar
- 2. Sanskrita Shikshaka, M. H. F. Jayasusiya
- 3. Sanskrta Bhashavataranika, Rev. Ananda Maithree Thero

## MS2204 Sanskrit IV (3:45/00)

Charaka Samhitha Vimana 8. Ashtangahridaya Samhitha sutra 14 with commentary, Kasyapa Samhitha Khilasthana 12.

- 1. Charaka Samhitha, Vimana Sthana Chapter 08
- 2. Ashtanga Hridaya Samhitha, Suthra 14 with comentory
- 3. Kasyapa Samhita Khilasthana 12

# MS2205 Jyotisa Muladharma (Principles of Astrology) (2:30/00)

Fundamentals of astrology, origin of astrology, foundation of astrology, zodiac system, Panchanga, Bhavakaraka, preparation of horoscope, prophesy.

- 1. Appuhami D. D. J., Ed., Varahamihira
- 2. Dasanayake A., Abhinava Lith Hodiya
- 3. Sumanasara E., Lagna Chandrikava
- 4. Vidyarathna M. G., Nakshatra Nighantuva

### DEPARTMENT OF ALLIED SCIENCES



# AS1101 Shareera Rachana (Anatomy) – I (3:15/60)

# Embryology, Upper limb Thorax and Abdomen (3:15/60)

Introduction of anatomy. Embryology. Upper limb. Back of neck, scapular region and shoulder. Arm and cubital fossa, forearm. The hand, joints of upper limb. Surface anatomy, intercostal space, pleura and lungs, mediastinum, its divisions and contents, heart and pericardium, autonomic nerves. Anterior abdominal wall, aabdominal viscera, kidney, ureter, suprarenal glands, diaphragm and posterior abdominal wall, lumbar plexus, aorta and its branches, inferior vena cava, autonomic nerves, applied anatomy

- 1. Cuninghams Practical Anatomy, Romanes
- 2. Chaurasia's Human anatomy, B. D. Chaurasia
- 3. Grants Atlas of Anatomy, AMR. Agur, Arthur F. Dalley
- 4. Human Embryology, Inderbir Singh

## AS1102 Shareera Kriya (Physiology) – I (3:30/30)

### Body fluids, Digestive, Respiratory and Urinary system (3:30/30)

Bodyfluid: Divisions, percentage, location, mechanism of formation and exchange. complication, oedema, dehydration. Digestive system: Component of the balanced diet and their role. Digestion of carbohydrates, protein and fat. functions of nose, mechanism of respiration, exchange of gases, control of breathing changes in respiration in high altitude, hypoxia, anoxia, asphyxia, cyanosis, artificial respiration. Kidney – structure, blood supply and functions, urine – normal and abnormal constituents, oliguria, anuria and polyuria, renin angiotensin mechanism, clearance values.

### **Recommended Texts:**

- Text book of Physiology, Ganong
- 2. Illustrated Physiology, Mackenn Calland
- 3. Applied Physiology, S. Right
- 4. A Text Book of Practical Physiology, C. L. Ghai

## AS1201 Shareera Rachana (Anatomy) – II (3:30/30)

#### **Pelvis**

Arrangement of pelvic viscera and pelvic peritoneum in the female and male, perineum, urogenital trangal and anal trangal, scrotum, testis, urogenital organs and other structures, pelvic viscera, ureter in the pelvis, urinary bladder, male – ductus deferens, prostate, seminal vesicle and urethra, female – uterus, broad ligament, fallopian tube, ovary, vagina, sigmoid colon, rectum and anal canal, pelvic wall muscles, vascular and nervous supply, applied anatomy.

- 1. Cuninghams Practical Anatomy, Romanes
- 2. Chaurasia's Human Anatomy, B. D. Chaurasia
- 3. Clinically Oriented Anatomy, Keith L. Moore, Arthur. F. Dalley

## AS1202 Sharera Kriya (Physiology) – II (4:30/60)

# Cardiovascular system, Hematology, Endocrine and Reproductive systems

Structure and properties of heart muscles, cardiac potentials, E.C.G., pressure in heart and vessels, circulation, heart sounds, heart rate, cardiac out put, pulmonary circulation and other special regions, capillaries and vascular responses of the skin. Blood composition, functions, red blood cells, haemoglobin. White blood cells, platelets, anemia, jaundice and applied haematology endocrine system: Hormones, functions, hyper secretion and hypo secretion of hypothalamus, pituitary gland, thyroid gland, adrenal gland, pancreas. Reproductive system: Male and female reproductive system.

- 1. Text book of Physiology, Ganong
- 2. Illustrated Physiology, Mackenn Calland
- 3. Applied Physiology, S. Right
- 4. A Text Book of Practical Physiology, C. L. Ghai



## AS2101 Shareera Rachana (Anatomy) – III (3:30/30)

### Ayurveda Shareera Rachana I (1:15/00)

Sharira Vyakya – categories of Sharira, preservation and dissection of dead bodies. Abhinivriththi Sharira, Garbha Sharira Rachana, Pramana Sharira, Sankhya Sharira.

### Ayurveda Shareera Rachana II (1:15/30)

Asthi, Sandi, Snayu and Peshi Sharira Rachana. Srotas, Dhamani and Shira Sharira Rachana, Koshtha, Koshthanga, Ashaya and Kala Sharira Rachana Uttamangiya Sharira Rachana, Marma Sharira Rachana (vital points), Indriya Vignana, utilization of anatomical knowledge for Dasha vidha Pariksha.

### **Recommended Texts:**

- 1. Charaka Samhitha relevant chapters
- 2. Sushruta Samhita relevant chapters
- 3. Abhinava Sharira, Damodara Sharma
- 4. Prattayaksha sharira, Gananath Sen

# AS2102 Shareera Kriya (Physiology) – III (3:30/30)

## Ayurveda Shareerakriya

Physiological role of Tridosha, Agni, Mala, and Ojas in various parts of the body. Concept of human physique and its classification according to Ayurveda and modern concepts and its clinical importance.

### **Srotas**

Physiological aspect of Shrotas: Pranavaha Shortasa, Annavaha Shrotasa, Udakavaha Shrotasa, Rasvaha Shrotasa Raktavaha Shrotasa, Mansavaha Shrotasa, Medovaha Shrotasa, Asthivaha Shrotasa, Majjavaha Shrotasa, Shukra and Aarthavavaha Shrotasa, Sweda, Mutra and Purishavaha Shrotasa, Manovaha Shrotasa, special sensory organs, Satmyaya and Asatmyaya.

- 1. Charaka Samhitha relevant chapters
- 2. Sushruta Samhita relevant chapters
- 3. Abninava sharira kriya Vignana, Priyavrita Sharma
- 4. Ayurvediya kriya sharira, Ranajith Rai Deshai

## AS2201 Shareera Rachana (Anatomy) – IV (4:30/60)

### Lower limb and Back (2:15/30)

Bones – Hipbone, femur, tibia and fibula, front and medial side of thigh, gluteal region and back of thigh, hip joint, popliteal fossa, knee joint, leg and, foot, muscles of the back applied anatomy.

### Head, Neck and Neuroanatomy (2:15/30)

Scalp and face, superficial structures in the neck, parotid region, skul bones, cranial cavity, orbit and their contents, neck, deep structures near base of the skull, root of the neck, front of the neck, pre vertebral region, oral cavity, nasal cavity, pharynx, larynx, eye, ear. The vertebral column and vertebral canal, spinal cord, brain stem, medulla, pons, midbrain, cerebellum, cerebrum, blood supply of the brain, ventricular system and flow of CSF, cranial nerves, clinical anatomy.

### **Recommended Texts:**

- 1. Cuninghams Practical Anatomy, Romanes
- 2. Gray's Anatomy
- 3. Clinical Anatomy, Harold Ellis
- 4. Text Book of Human Neuroanatomy, Inderbir Singh

# AS2202 Shareera Kriya (Physiology) – IV (4:30/60)

# Nervous system and special sensory organs (2:15/30)

Divisions, functions of pyramidal pathway and lesions. Cerebral cortex areas, connections and functions. Extra pyramidal pathway. Cerebellum – functions, spinal cord, sensory pathway, cranial nerves.

## Biochemistry (2:15/30)

The cell, biomolecules, enzymes and hormones, glucose metabolism, lipid metabolism, protein metabolism, electron transport chain and ATP synthesis, integration of metabolism, haem metabolism and jaundice, purine and pyrimidine metabolis, diseases associated with lipid metabolism.

### **Recommended Texts:**

1. Text book of Physiology, Ganong

- 2. Illustrated Physiology, Mackenn Calland
- 3. Applied Physiology, S. Right
- 4. Biochemistry, Lippincott

## AS3103 Vikriti Vignana (Pathology) – I (3:30/30)

### **General Pathology (1:15/00)**

Acquired causes of diseases. Hypoxic injury, chemical injury, physical injury, immunological injury, psychological injury, degeneration, cell death, necrosis gangrene, derangements of body fluids, electrolytes and blood flow, derangement in the volume of the circulating blood, circulatory disturbances of obstructive nature inflammations and healing. Haematological Examination: Types of anaemia, leukaemia, haemophilia.

# Gastro Intestinal Tract, Urinary Tract, Immunopatho-physiology, and Neoplasm (2:15/30)

Gastrointestinal system. Nutritional deficiency, Congenital diseases, Oesophagitis, Chemical burns, Gastric inflammation, Gastric and Duodenal ulcer, Congenital abnormalities, Small intestinal inflammatory diseases, Large intestinal diseases, Hepatitis, Cirrhosis, Portal hypertention, Jaundice, Gall bladder tumours, Gall stones, Pancreatitis, Spleenomegaly Stool Examination.

**Urinary Tract:** Glomerular nephritis, nephrotic syndrome, renal hypertension, renal stones, bladder stones, tumours, haematuria. Urine analysis, Immuno-physiology and immunopathology. Immunity, immunodeficiency disorders, hypersensitivity diseases neoplasia. Atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia, premalignant lesions, characteristics of tumors, carcinogenesis.

### **Recommended Texts:**

- 1. General Pathology, F. T. Waltor and M. S. Izrayal
- 2. Mur's Pathology
- 3. Pathology Andason

# AS3203 Vikriti Vignana (Pathology) – II (2:15/30)

# Cardio Respiratory and Nervous System (2:30/00)

Cardiovascular System: Hypertension, atheroma, thrombosis, embolism,

aneurysm, pulmonary hypertension, portal hypertension, senile heart diseases, rheumatism, ischaemic and congenital heart diseases. X-Ray, E.C.G.

**Respiratory diseases:** Bronchitis, bronchiactasis, bronchial asthma, pneumonia, tuberculosis, abscess, emphysema, fibrosis, pleurasy, pyothorax, pneumothorax, hydrothorax, haemothorax.

**Nervous System:** Meningitis, encephalitis, neuritis, hemiplegia, paraplegia, monoplegia, cephalic and spinal degenerative diseases, tumours, parkinsonism, Algeihmer's diseases, E.E.G., US image technology.

# Parasitology, Microbiology, Endocrinology, and Sexually transmitted Diseases (1: 15/00)

**Parasitology:** Protozoal, malaria, helminthes, intestinal nematodes, identification of parasites.

**Microbiology:** Viruses, viral infections: Dengue, chikungunya sterilization and disinfections, identification of types of bacteria.

**Endocrine disorders:** Diabetes mellitus, diabetes insipidus, hyper/hypo thyrodism.

**Sexually Transmitted Diseases:** Syphilis, AIDS, gonorrhoea, semen, vaginal secretions.

### **Recommended Texts:**

- 1. General Pathology, F. T. Waltor and M. S Izrayal
- 2. Muir's Pathology
- 3. Pathology Andason
- 4. Pathology Illustrated Govan, Macfarlane, Callander

# AS4104 Principles of Clinical Medicine – I (4:30/60)

# Diseases of the Nervous System, cardiovascular System, and Blood (2: 15/30)

Neuralgia, tremors, cerebral lesions, facial paralysis, convulsion, epilepsy, sensory and motor disturbances, meningitis, encephalitis, Parkinsonism, Sciatica, wrist drop, foot drop, frozen shoulder, locked jaw, myopathies, spondylosis.

**Cardiac diseases** – IHD, CCF, fatty heart, hypertension, diseases of arteries and vein

**Blood** – Anaemia, bleeding disorders, leukemias, thalassaemias.

# Diseases of the Respiratory system, Alimentary Tract and Biliary System (2: 15/30)

asthma, pneumonia, bronchitis, bronchiactesis, pulmonary carcinoma, tuberculosis, emphysema, pneumothorax, rhinitis, diarrhoea, dysentry, vomitting, anorexia, gastritis, gastric and duodenal ulcers, abdominal tumors, pancreatitis, typhoid, colitis, hemorrhoids, hepatitis, jaundice, ascitis, cirrhosis of liver.

**Neoplasms** – Benign and malignant.

Special investigations – ECG, X-ray, CT scan, and Ultrasound scan.

### **Recommended Texts:**

- 1. Davidson's Principles and Practice of Medicine
- 2. Price Text Book of Medicine
- 3. Chamberlains Symptoms and Signs in Clinical Medicine
- 4. Clinical Medicine. Kumar and Clark

# AS4204 Principles of Clinical Medicine – II (4:30/60)

# Diseases of the Kidney and Urinary System, Connective Tissue, Joints and Skin (2: 15/30)

Nephritis, nephrotic syndrome, renal failure, anuria, renal calculi, arthritis, rheumatic fever. Urticaria, dermatitis, eczema, psoriasis, scabies, ring worm.

# Febrile Conditions, Psychiatric and Endocrine Diseases (2: 15/30)

Clinical importance of hyper pyrexia, malaria, dengue, filarial, chicken gunya, diabetes mellitus, obesity, commonly found endocrine disorders, hyperthyroidism, Cushings disease, Addison's disease.

**Psychiatric disoders** – Anxiety, depression, phobias, psychosis, schizophrenia, etc.

**Visiting to special clinics** – Welisara Chest Hospital, STD Clinic, IDH, Cancer Hospital and Mental Hospital.

### **Recommended Texts:**

- 1. Davidson's Principles and Practice of Medicine
- 2. Price Text Book of Medicine
- 3. Chamberlains Symptoms and Signs in Clinical Medicine

## AS4105 Forensic Medicine I (2:30/00)

Introduction to medico legal system in Sri Lanka, Medical Councils of Sri Lanka, basic medical ethics, medical evidence, medical negligence, birth and death registration procedure in Sri Lanka.

Mechanical injuries, head injuries, injuries due to physical agents, firearm injuries. Road traffic accidents, introduction to DNA technology and finger printing. Death diagnosis, changes after death, estimation of time since death, certification of death, inquest.

#### **Recommended Texts:**

- 1. Text Book of Clinical Forensic and Forensic Pathology, Niriellage Chandrasiri
- 2. Clinical and Forensic Toxicology, C. B. Babapulle
- 3. Sympson Forensic Medicine, Bernard Knight

# AS4205 Forensic Medicine II (1:15/00)

Child abuse, infanticide, sexual offences, abortion, asphyxia, drunkenness.

### **Recommended Texts:**

- 1. Clinical Forensic Medicine, W. D. S. Maclay
- 2. Essential of Forensic Medicine, K. S. Narayan Reddy

# AS2106 Introduction to Bio Feedback (2:15/30) – (Optional Subject)

Definition, sensor, modalities electromyograph, feedback, thermometer, electrodermograph, electroencephalograph, photoplethysmograph, electrocardiograph, neumograph, capnometer, rheoencephalograph, hemoencephalography Applications: Incontinence, EEG, electrodermalsystem, musculoskeletal system cardiovascular system, pain, clinical effectiveness. Organizations.

### **Recommended Texts:**

1. Biofeed back – A Practitioner's Guide, Frank Andrasik, Mark, S, Schwartz

# AS2107 Principles of Genetics, Molecular Biology and Bio Technology (2:15/30) – (Optional Subject)

Mendalian Genetics: Gene segregation, Mendal's law. Linkage; Mutation: Mutagenes, mutation types. Cytogenetics: numerical changes in chromosomes, structural changes in chromosomes, sex determination and sex linked inheritance, cell division, related diseases. Introduction to molecular genetics: neuleotides and nucleic acids, replication, transcription, gene regulation, recombinant DNA technology. DNA finger printing; DNA sequencing.

- 1. Lehninger Principles of Biochemistry, Nelson and Cox
- 2. Principles of Molecular Genetics and Biotechnology

# DEPARTMENT OF DRAVYAGUNA VIGNANA (DEPARTMENT OF AYURVEDA PHARMACOLOGY AND PHARMACEUTICS)



DV1101 Dravyaguna Vignana (Ayurveda Pharmacology) – I (3:30/30)

# Basic Principles of Dravayaguna vignana (Ayurveda Pharmacology) (2:15/30)

Introduction of Dravyaguna Karma Vignana, The historical development of Dravyaguna Karma Vignana, The relevant texts of Dravyaguna Karma Vignana, The utilization of Dravyaguna Karma Vignana in medical practice, Introduction of dravya, Classification of dravya. Basic principles of Drvyaguna Vignana-I (Ayurveda Pharmacology), laboratory guidelines and techniques, botanical classification of plants, Nomenclature of plants, macroscopic and microscopic identification of plants.

# Basic principles of Dravyaguna Vignana, Pre and Post Harvesting Methods of Medicinal Plants (1:15/00)

Basic principles of Dravyaguna Vignana-II (Ayurveda pharmacology), conservation and cultivation of medicinal plants, principles of collection and preservation of raw materials, educational field tour for identification of medicinal plants.

### **Recommended Texts:**

- 1. Dravyaguna Vingnana, Alwis, W.
- 2. Dravya Muladharmam, Chandrasssekara, H. I.
- 3. Pramanika Navya Aushadaveda, Ranasingha, S. G.

# DV1201 Dravyaguna Vignana (Ayurveda Pharmacology)– II (3:30/30)

### Action, Indications and Chemical Constituents of Drugs (2:15/30)

Action and indication of drugs, important chemical constituents of medicinal plants, Basic experiments for actions of medicinal plants, basic practical training of cultivation of medicinal plants.

# Drug Classification, Standardization and Tissue Culture Techniques (1:15/00)

Classification of drugs, mixed classification in Dravyaguna Vignana, Panchashath Maha Kasaya, principles of standardization and quality control of raw materials and finished drugs, general introduction to tissue culture techniques.

### **Recommended Texts:**

- 1. Charaka Samhita, Dash, B.
- 2. Charaka Samhitha, Kumarasingha, A.
- 3. Sushruta Samhitha, Murthy, K. R. S. K.
- 4. Pramanika Navya Aushadaveda, Ranasingha, S. G.

# DV2101 Dravyaguna Vignana (Ayurveda Pharmacology) – III (4:30/60)

# Fundamental of Pharmacology and Toxicology of Drugs (2:15/30)

Introduction and fundamentals of pharmacology, mechanism of pharmacological action of medicinal plants, active principles of medicinal plants, nomenclature of modern drugs, pharmacodynamics, pharmacokinetics, basic techniques of in vivo experimental models.

Toxicology, adverse drug reaction and drug interactions, basic principles in tissue culture. introduction for laboratory techniques, basic tissue culture techniques used in cultivation of medicinal plants, in vivo experimental studies, identification of plants and natural products (macroscopic and microscopic).

### Principles, Actions and Indication of Chemical Drugs (2:15/30)

The principles and actions of chemical drugs, (modern drugs) on different systems of the body, Importance of vitamins and minerals, common medical emergencies, Therapeutic application of drugs on different diseased conditions, therapeutic applications of drugs in Panchakarma, efficacy of drugs, identification of main physical and chemical compounds contained in medicinal plants and their pharmacology.

### **Recommended Texts:**

- 1. Dravya Guna Vignana, P.V.Sharma
- 2. Murthy, K. R. S. K. Ashtanga hardaya, Chawkhama Orientalia, India
- 3. Dravyaguna Vingnana, Alwis, W. (1966)
- 4. Pramanika Navya Aushadaveda, Ranasingha, S. G.

# DV2201 Dravyaguna Vignana (Ayurveda Pharmacology) – IV (3:30/30)

Description and indications of drugs, Principles of drug administration (3:30/30) Detailed study of medicinal plants, The principles of Prayoga Vignana (drug dministration), route of administration of drugs and Matra (posology). Adverse drug reactions, complications and treatments, The legal aspects of drug rules and regulation, The ethical aspects and responsibilities of therapy and experiments, Detailed study of individual drugs. Educational field tour for identification of medicinal plants. Navinna Bandaranayake Memorial Research Institute, National Botanical Garden – Peradeniya, Haldummulla Herbal Garden, Pattipola Herbal Garden.

### **Recommended Texts:**

- 1. Dravya Guna Vignana, P. V. Sharma
- 2. Murthy, K. R. S. K. Ashtanga Hardaya, Chawkhama Orientalia, India.
- Dravyaguna Vingnana, Alwis, W. (1966)
   Pramanika Navya Aushadaveda, Ranasingha, S. G.

# DV2104 Functional foods and Nutraceuticals (1:15/00) – (Optional Subject)

Introduction, nutraceutical factor, food and non-food sources of nutraceutical factors, natural herbal medicine as nutraceuticals and functional foods, mechanism

of action, classifying nutraceutical factors based on chemical nature, marketed preparation of nutritional supplements, medical foods as nutritional supplements, effectiveness and safety

### **Recommended Texts**

- 1. Handbook of Nutraceuticals and Functional Foods; Wildman REC, Kelley M.
- 2. Nutraceuticals and Functional Foods, Taylor and Francis
- 3. Handbook of Analysis of Active Compounds in Functional Foods Nollet LML, F.

# DV2105 Cultivation and Propagation of medicinal plants (2:30/00) – (Optional Subject)

Introduction, causes of stress and failure in plants, Basic tissue culture techniques, nursery management, propagation methods, planting and aftercare, propagation guide to selected medicinal plants.

### **Recommended Texts:**

- 1. Cultivation of Medicinal and Aromatic Crops, Farooqi A. A., Sreeramu B. S.
- 2. Medicinal Plants: Utilisation and Conservation, Aavishkar, Trivedi P. C.
- 3. Principles and Procedures of Plant Breeding, Chahal, G. S. and Gosal, S. S.

# DV2106 Pharmacovigilance and Drug safety (2:30/00) – (Optional Subject)

Introduction, risks of medical treatment, terms commonly used in drug safety, finding the risk of drugs, reporting methods, International collaboration, pharmacoenvironmentology, pharmacovigilance of herbal medicines.

- WHO Global ICSR Database System: Basic Facts. Lindquist M. Vigibase, the *Drug Information Journal* 2008, 42: 409-19.
- 2. WHO guidelines on safety monitoring of herbal medicines in pharmacovigilance systems, World Health Organization, Geneva, 2004
- 3. "Environmental pharmacology: A new discipline", Rahman, SZ; Khan, RA (Dec 2006). *Indian J Pharmacol* **38** (4): 229-30.

# DV 2207 Ethnopharmacology and Phytomedicine (2:30/00) – (Optional Subject)

Introduction to phyto drugs and natural products, pharmacological action of low molecular plant constituents and high molecular weight compounds, plant constituents and diseases, cell culturing, cell growth and apoptosis, cell-mediated immune responses, enzymes, receptors and plant constituents, the unique challenges of plant-based medicines, plant constituents, contradictions and interactions, phyto-drug formulation and aspects concerning different dosage forms, isolation and identification of medicinal bioactive compounds from plants, strategies to discover new pharmaceuticals from ethnomedicine.

### **Recommended Texts:**

- 1. Drug Discovery and Evaluation Pharmacological assays. (1997) Ed. Vogel HG & Vogel WH. Springer-New York.
- 2. Harborne J.B. 1998. Phytochemical Methods A guide to modern technique of plant analysis, 3rd edn, Champan & Hall, UK.
- 3. Goodman Gillman's The Pharmacological Basis of Therapeutics. (2001) Ed. Hardman JG, Limbird LE (Tenth Edition) McGraw Hill Press New York
- 4. Jain, S.K. 1995. A manual of Ethnobotany, 2nd Ed.
- 5. Plant Drug Analysis 2nd edition by Wagner, Bladt.
- 6. Biological Sstandardization by J. N. Barn, D. J. Finley and L.G. Good win Screening methods of Pharmacology by Robert turner.

## **DV3102** Rasa Shashtra (Alchemy) – I (2:15/30)

# Introduction, Classification and Terminology of Rasa Shastra (2:15/30)

Introduction and interpretation of Rasa shastra, Rasa aushada disciple and teacher, Classification of maharasa, uparasa, sadharanarasa, dhatu, upadhatu, rathna, sudha varga, siktha varga, lavana, kshara ,visha and upa visha according to the classical texts.

Origin and history of Rasa shastra, the integration of Rasa shastra and Ayurveda chikithsa (treatment), Paribasha (terminology) of Rasa shastra, Shodhana (purification) and Marana (incineration) processes, common Rasa drugs used in Sri Lanka.

### **Recommended Texts:**

- 1. Rasaratna Samuchchaya, Satpute, A. D,
- 2. Rasaratna Samuchchaya, Buddadasa, (Sinhala translation) D. P. Rajakaruna
- 3. Sharma, S. H. Rasatharangani, Sharma, S. H. (Sanskrit)
- 4. Rasendrasara Samagraha, Sharma, S. H. (Sanskrit)

# DV3103 Baisajya Kalpana (Ayurveda Pharmaceutics) – I (3: 30/30)

# Introduction of Basic Principles of Ayurveda Pharmaceutics, Basic Drug Manufacturing Methods and Indications (1:15/00)

Introduction of Bhaisajya Kalpana (Ayurveda pharmaceuticals), The historical development of Bhaisajya Kalpana vignana, basic principles of Ayurveda pharmaceutics, Mana paribhasha (introduction and comparison of conventional measuring, techniques with Metric system, classification of methods of different drug preparations, Panchawida kashaya kalpana, (preparation of decoctions, swarasa (juice), kalka (paste), srutha (kwatha or decoction), hima (cold infusion), and phanta (hot infusion), gutika, vatika, varti and modaka kalpana (pills and tablets).

## **Secondary Drug Manufacturing Methods and Indications(2:15/30)**

Churna Kalpana (powders), Sandhana Kalpana (fermented preparations), Sneha kalpana (medicated oil and ghee preparations), Sharkara kalpana (syrup), Avaleha kalpana (confections), Gugul Kalpana, Lavana yoga and and Masi kalpana, Anna kalpana (dietetic preparations), Lepa Yoga, Malahara, field visits to Ayurvedic Drug Coporation.

- 1. Ayurveda Pharmocopoeia, (Volume I, II, III), Department of Ayurveda
- 2. Bhaisajya Kalpana Vingnanam, Reddy, K. R. C.
- 3. Bhaisajya Rathnawalee, Sen, K. B. L., Kaviraj Ashutosh Sen.
- 4. Kashaya sangrahaya, Devamiththa, G. S.
- 5. Kashaya Sagaraya, Kodikara, S. S.

## DV3202 Rasa Shashtra (Alchemy) – II (3:15/60)

# Equipments and Guidelines to Rasa Pharmacy and Rasa Preparations (2:15/30)

Rasashala (pharmacy), standardization and analyzing of metallic, mineral and herbo – mineral drugs, Yanthra and Upakarana (equipments) – conventional and modern, Koshti and Mushas (furnaces and crucibles), Rasa and its preparations, Maharasa, Visha, Upavisha varga, Sudha varga, preparation of Rasa yoga – Rasa kajjali, Rasaparpati, Rasasindhura, Rasamanikya, Vajrakshara, Uparasa, Sadharanarasa, Dhathu, upadhathu.

### **Precious Stones, Poisonous Plants and Others (1:15/00)**

Rathna, uparathna, Visha, upavihsa (poisonous plants), Lavna, kshara, sudha varga, siktha varga. Special rasa Preparations. Swarnavanga, Gandhakamalahara, Thuttamalahara.

Punarnavamandura, Kaphaketu Rasa, Shvasakutararasa, Ramabhanarasa, Mruthunjayarasa, Gandhaka druthi, Kasisadi thaila, Gandhaka rasayanaya.

### **Recommended Texts:**

- 1. Rasaratna Samuchchaya Satpute, A. D.
- 2. Rasaratna Samuchchaya, Buddadasa, (Sinhala translation) Rajakaruna D. P.
- 3. Sharma, S. H. Rasatharangani, Sharma, S. H. (Sanskrit)
- 4. Rasendrasara Samagraha, Sharma, S. H. (Sanskrit)

# DV3203 Baisajya Kalpana (Ayurveda Pharmaceutics) – II (4:30/60)

# Traditional Drugs, External Applications, Alkali, Solid Extractions and Indications (2:15/30)

Traditional drug recipes used in Sri Lanka, introduction and methods of preparation of Unani and Siddha drugs, Bahya kalpana (formulations intended for external use), Kshara, sathva kalpana and Ganasara, Khandapaka, Lavana, Sathva Yoga, Aschothana, Kavalagrha, Gandusha, different type of medicinal preparations used for enema, preparation of traditional, Siddha, Unani formulations.

# Special Preparation Related with Panchakarma Therapy, Drug Standardization, GMP Rules and Regulations (2:15/30)

Pancha Karma Upayoga sanskara, Mukha yoga kalpana – Gandusha; Kavala; prathisarana (mouth wash, gargeles, tooth paste), Nethra yoga and Nasika yoga kalpana, Purva karma and pancha karma yoga, drug standardization and quality control techniques and introduction of instruments using in drug preparation, preparation and storage of raw materials and prepared drugs, good Manufactoring practice in herbal medicine, modern techniques used in drug preparation, field visits-selected drug manufacturing factories.

- 1. Dravyaguna vingnanaya, Thrikamajee, Y. Sri Vidyanatha
- 2. Kashaya Sangrahaya, Devamiththa, G. S.
- 3. Kashaya Sagaraya, Kodikara, S. S.
- 4. Clinical Pharmacology, Laurence, D. R.
- 5. Pharmocopial Standards for Ayurvedic Formulations, Central Council for Research in Ayurveda and Siddha, Ministry of Health and Family Welfare, New Delhi.
- 6. The Ayurvedic Formulary of India. (2000) Government of India, Ministry of Health and Family Welfare, Department of Indian Systems of Medicine and Homeopathy.

# DEPARTMENT OF KAYA CHIKITSA (DEPARTMENT OF AYURVEDA CLINICAL MEDICINE)



KC3101 Nidana Muladharma (Fundamentals of Diagnosis) – I (3: 30/30)

## Roga Pariksha (1:15/00)

Introduction of basic Ayurveda concepts of aetiopathogenesis and it's relation to imbalance of intrinsic humors (Thridoshas). Definition of Roga, classification of Roga, Roga Adhishtana, Roga Marga, Nomenclature of Roga, Nidanadi Panchaka or Roga Vignanopaya, Shadvida kriya kala.

## Rogi Pariksha (2:15/30)

Method of clinical examination, Trivida Pariksha, Trivida Pramana, Panchendriya Pariksha, Shadvida Pariksha, Ashtasthana Pariksha, Dashavida Pariksha Srotas Pariksha (systemic examination).

- 1. Charaka Samhita (Sinhala Translation), Kumarasinghe A.
- 2. Susrutha Samhita (English Translation), Srikantha Murthy K. R.
- 3. Madawa Nidana (Sinhala Translation), Kumarasinghe A.

# KC3102 Chikitsa Muladharma and Panchakarma (Fundamentals of Therapeutics and Panchakarma) – I (3:30/30)

### Chikitsa Siddhantha (1:15/00)

Importance of Kaya Chikitsa in Astanga Ayurveda, distinct features and identification of Ayurveda Chikitsa. Classification of diseases and diversity of treatment. Various types of Chikitsa, Nidana Parivarjana and Dhatusamya. Chikitsa Anga and Upanga, factors which effects the efficacy of treatment.

Therapeutic approaches, results of treatment, limitation of treatment, types of Chikitsa, complications of Chikitsa, factors involved in Chikitsa, fundamentals of treatment of Agni and Ama, shadkriyakala. Treatment for Sthanagata dosha and Anyasthanagata dosha, treatment for dual doshic and Sannipataja doshic involvements, treatment for Dhatuvriddhi and Dathu Ksheena, Fundamentals of treatment for the vitiated Srotas. Rasayana chikitsa, Different types of Rasayana therapies and therapeutic measures to increase immunity or Vyadhikshamatva. Vajikarana Chikitsa.

### Therapeutic measures (2:15/30)

Detailed description on Ayurveda Abhyanga Krama including Abhyanga techniques (Ayurveda massage) and Murdhani Taila Krama, Shirsha Abhyanga, Sharira Abhyanga, Hasta Abhyanga, Pada Abhyanga, Prushta Abhyanga, Marma Abhyanga, and Kshudra Karma, Keraliya Panchakarma, mud therapy. Therapeutic application of Yoga.

### **Recommended Texts:**

- 1. Charaka Samhita (Sinhala Translation), Kumarasinghe A.
- 2. Susrutha Samhita (English Translation), 2002, Srikantha Murthy K. R.
- 3. Vagbhata's Astanga Hrdayam (English Translation), Srikantha Murthy K. R.

# KC3201 Nidana Muladharma (Fundamentals of Diagnosis) – II (4:30/60)

# Concept of Agni and Classification of Diseases Based on Srothas and Indriyas (2:15/30)

Agni, Ama, Sama, Nirama, Dhatu paka, accumulation of Doshas and spreading of doshas in the Koshta towards Shaka and its manifestation; Dosha samya (equibilirum of Doshas); Dushya, Vruddhi, Kshina and Ashraya Ashrayibhava of Dhatus and Doshas. Srotas and Srothodushti.

### Complication of Diseases and Usage of Clinical Methods (2:15/30)

Complication of diseases, Arishta Lakshana, Prognosis, signs and symptoms of curable and incurable diseases, clinical features of imminent death, Duta Lakshana, description and interpretation of dreams. modern medical diagnostic methods (blood, urine, stool, sputum, CSF, etc and X ray, ECG, EEG, ultra sound scanning).

### **Recommended Texts:**

- 1. Clinical Methods in Ayurveda, Srikantha Murthy K. R.
- 2. Pancha Nidana Granthya, Jayasinghe D. M.
- 3. Anjana Nidanaya, Jayasinghe D. M.

# KC3202 Chikitsa Muladharma and Panchakarma (Fundamentals of Therapeutics and Panchakarma) – II (4:30/60)

### Panchakarma (4:30/60)

Introduction on Panchakarma and its various concepts, Poorvakarma, Pradhanakarma, Pashchat Karma, Snigdha Karma, Sveda Karma, Vamana Karma, Virechana karma, Vasti Karma (Niruha and Anuvasana), Nasya, Raktamokshana, Kshudra Karma.

### **Recommended Texts:**

- 1. Charaka Samhita
- 2. Sushruta Samhita
- 3. Ashtanga Hrudaya
- 4. Bhava Prakasha
- 5. Cakradatta (English Translation), Sharma P. V.
- 6. Kayachikitsa 1 Dr. H. A. S. Ariyawansa
- 7. Panchakarma Vignanaya, Dr. H. A. S Ariyawasa

# KC4103 Kaya Chikitsa (Ayurveda Clinical Medicine) – I (3:30/30)

# Annavaha Sroto Roga (3:30/30)

Agni Mandya, Ajirna, Alasaka, Visuchika, Atisara, Pravahika, Chardi, Aruchi, Trishna, Hrillasa, Udavarta, Anaha, Adhmana, Grahani, Arshas, Krimi, Pandu, Kamala, Parinama Shula, Annadrava Shula, Amlapitta, Amashula, Parshva Shula, Udara.

### **Recommended Texts:**

- 1. Charaka Samhita (Sinhala Translation), Kumarasinghe A.
- 2. Susrutha Samhita (English Translation), Srikantha Murthy K. R.
- 3. Madawa Nidanaya, Kumarasinghe A.
- 4. Vaidyaka Sarartha Sangrahaya (Sinhala Translation), Kumarasinghe A.
- 5. Kayachikitsa 1, H. A. S. Ariyawansa

# KC4203 Kaya Chikitsa (Ayurveda Clinical Medicine) – II (5:45/60)

### Rakta Vaha, Rasa Vaha and Asthi Sandhi Gata Roga (2:15/30)

Amavata, Jwara, Urustambha, Rakta Pitta, Hridroga, allergic diseases, Shotha

### Vata Vyadhi, Prana Vaha and Mansa Vaha Srotas Roga (3:30/30)

Eighty types of Vata Vyadhi, Gulma, Pratishya, Kasa, Udhavanshika, Shvasa, Hikka, Rajayakshama, Shosha, Urahkshatha, Swarabheda.

### **Recommended Texts:**

- 1. Sinhala Yoga Rathnakaraya
- 2. Vatika Prakaranaya, Vaidyarathna S. S. T., Vaidyarathna M. T. S.
- 3. Clinical Methods in Ayurveda, Srikantha Murthy K. R.

## **KC4204** Massage therapy (2:15/30) – (Optional Subject)

Massage anatomy, massage physiology, massage strokes, requirement of massage therapy centre, head massage therapy, limbs massage therapy, Body front massage therapy, back massage therapy, baby massage therapy, pregnancy massage therapy, aged massage therapy. Self massage.

### **Recommended Text:**

1. Massage Therapy, Haris Johari

## **KC4205** Aroma Therapy (2:15/00) – (Optional Subject)

Aromatic oils, pharmacology of aromatic plants and oils, usage of aromatic oils, various types of aromatherapies: body massage, face massage, bath, inhalation, head application, hand bath, foot bath, mouth wash, and neat application.

### **Recommended Texts:**

AromaTherapy, Kathi Keville and Mindy Green

# KC4206 Manasa Roga Muladharma (Principles of Psychiatry)(2:30/00) – (Optional Subject)

Manovaha Srotas, analysis of the mind, brief history of psychotherapy, patient related problems, person centered therapy, discourses by the unconscious, behavioural remedy through self awareness.

### **Recommended Texts:**

- 1. Psychotherapy of Everyday life, Harper, Collins
- 2. Buddhist Psychotherapy, Nissanka H. S. S.
- 3. Secrets of Mind body Health, Kulkarni P. H., 1998

# KC5103 Kaya Chikitsa (Ayurveda Clinical Medicine) – III (3:30/30)

Mutra vaha, Udaka vaha, and Medo vaha Roga (3: 30/30)
Prameha, Ashmari, Mutra Krichchra, Mutra Ghata, Medo Vriddhi, Atisthula, Athikrusha

#### Recommended Texts:

- 1. Cakradatta (English Translation), Sharma P. V.
- 2. Yogamrutasindhu, Pathinayaka D. J.
- 3. Kashaya Sagaraya, Kodikara S. S.

# KC5203 Kaya Chikitsa (Ayurveda Clinical Medicine) – IV (5:45/60)

## Charma Roga (2: 15/30)

Vatarakta, Kushtha, Shvitra, Kilasa, Visarpa, Visphota, Masurika, Laghu Masurika, Sheeta Pitta, Udarda, Utkotha, Kotha.

### Manasa Roga, Kshudra Roga, Udara and Vriddhi Roga (3:30/30)

Unmada, Apasmara, Madatya, Daha, Kshudra Roga, Pitta Kapha Roga, poisoning and accidents, occupational diseases, management of acute clinical conditions such as dehydration, convulsion, asthmatic attack, unconsciousness.

- 1. Sinhala Kashaya Sangrahaya, Gunarathna L.
- 2. Pancha Nidana Granthya, Jayasinghe D. M.
- 3. Anjana Nidanaya, 14, Jayasinghe D. M.
- 4. Siddhanta Nidanam, Gananath Sen, Kaviraj S. K. Sen.

# DEPARTMENT OF SWASTHAVRITTHA (DEPARTMENT OF AYURVEDA COMMUNITY MEDICINE)



# SW2101 Research Methodology and Bio Statistics – I (1:15/00)

Introduction to research methodology, selection of research topic, principles and methods of literary research, research methods and study design, data collecting techniques, research ethics, sampling techniques and sample size, data analysis.

## SW2201 Research Methodology and Bio Statistics – II (1:15/00)

Mean, mode, median, SD, SE, basis statistics, central tendency and computer aided data analysis, coding the data, prevalence, trends of correlation, introduction to medical statistics, effective proposal and report writing.

- 1. An Introduction to Medical Statistics, Martin Blend
- 2. Elementary Statistics for Medical Workers, Indeber Singh

## SW3102 Swastha Vritttha (Community Medicine) – I (4:30/60)

### Health and Swasthvritta (2:15/30)

Health and ill-health, factors that influence health, criteria to measure health. Health status in Sri Lanka and developed and developing regions. Ayurvedic ritualas, Dina charya, Rathri charya, Rithu charya, bearing urges. Bearable and unbearable urges. Mental health, fundamental of counciling, Sadvitta and Achara Rasayanaya.

### Nutrition, Health and Janapada Udvanshanaya (2:15/30)

Classification, Preservation of food compatibility, pollution of food and it's prevention. Indigenous dietary therapy, water pollution, air pollution, pollution of land, sound waves and their influences, temperature and its influence, waste disposal, Industrial health, environmental polluting due to modern technology, school awareness programmes and national environmental programmes.

### **Recommended Texts:**

- 1. Charaka Samhithas
- 2. Susrutha Samhitha
- 3. Astanga Hridaya Samhitha
- 4. Swastha Vritha Samuchchaya, Rajeswar Daththa

# SW3202 Swastha Vritttha Community Medicine) – II (3:30/30)

# Rasayana and Vajikarana and Family Health (2:15/30)

Immunity and prevention of infectious diseases. Non communicable diseases and it's prevention. Maternal and child health. Ante natal, natal, and post natal services. Family planning methods, infant nutrition, growth and development. School health promotions.

Services for disable children, child welfare services. Management and Administration of health.

## Community Medicine (1:15/00)

Available methods to measure health and well being, food components, balanced diet, nutritional deficiency diseases, determination of nutritional status, nutritional health problems, food safety, food act and safety standards, food

preservation, food transmission diseases, epidemiology-communicabla diseases, immunization. prevention and control of communicable diseases. prevention and control of non-communicable diseases. Health promotion.

Environmental health and problems. Health Care Services in Sri Lanka, primary health care services. International organization of health services, health education, social health.

### **Recommended Texts:**

- 1. Kaika Vignanaya, K. G. P. Jayathilaka
- 2. Ayurveda Saukya Sanrakshana Vidhi, Ariyadasa Kumarasingha
- 3. Swastha Sangrahaya (Sinhala translation), Levelin Roberts
- 4. Preventive Medicine, K. Park and E. Park
- 5. Positive health through Ayurveda I, Gupta and L. D. Gupta

# SW4203 Ayurveda Roopalavannya Sanrakshana (Ayurveda Beauty care) (03:30/30) – (Optional Subject)

Introduction of beauty care, Introduction of skin anatomy, physiology, skin care mentioned in ayurveda (facial treatment, food, hand, hair), special remedies and herbs. Viharana and food for skin care.

### Recommended Text:

Herbal Beauty Care – 2nd Edition, Rshmi Sharma

# **SW4204** Medical Sociology (2:30/00) – (Optional Subject)

The distinction between health and illness, the role of social stress in health and well-being, the current state of the Sri Lankan health care system, the role of insurance in financing health care.

- 1. The Sociology of Health, Healing, and Illness. Greogory L. Weiss and Lynne E. Lonnquist, 2006
- 2. The Sociology of Health and Illness. John B. McKinlay and Sonja M

## SW4205 Health management (2:30/00) – (Optional Subject)

Function of out patient and inpatient services, function of the ward, physical set up of the ward, daily routine, personal management, in service education, hospital sanitation: hospital premises, hospital water supply, disposal of waste and dead bodies, control of vector and rodents, laundering of linen, food sanitation, control of cross infection.

# SW4206 Health Tourism (2:30/00) – (Optional Subject)

Management of Ayurvedic tourist health resorts, centres and Ayurvedic tourist health resorts, Ayurvedic health centres in tourist hotels, guest houses registration.

Minimum requirements – Location, building compound, parking, information, Consultation rooms and waiting room minimum facilities and equipment treatment rooms, area for relaxation lounge, medicine preparation room, casual toilets, staff and facilities, cuisine, bed rooms. The dinning area, kitchen, general regulatory requirement.

## **SW4207** Yoga and Meditation (2:15/30) – (Optional Subject)

Concept of yoga, basis of yoga, Jnana yoga, Raja yoga, Bhakthi yoga, Karma yoga, Indian culture, Preparation for postures, standing postures, sitting postures, prone postures, supaine postures, Pranayama and kriyas, meditation and devotional music, Yoga teaching techniques.

# DEPARTMENT OF SHALYA SHALAKYA (DEPARTMENT OF AYURVEDA SURGERY)



## SS 5101 Shalya Tantra (Ayurveda Surgery) – I (4:30/60)

### Introduction, Definitions and Basic Principles of Shalya (2:15/30)

The origin of Shalya Thanthra, the place of Shalya Thanthra in eight-fold of Ayurveda, deterioration of Ayurveda Surgery, up-lifting of Shalya thanthra, teachers of Shalya Thanthra, texts, documental, commentaries.

Classification of diseases; endogenous and exogenous diseases, Ayurvedic surgical instruments, Bandhana, Yogya Shalyakarma, Thrividha Karma (Purva Karma, Pradhana Karma, Pashchath Karma), Ashta vidha shastra karma, methods of Raktha Nivarana, Kshara Karma, Agni Karma and Dagdha, Raktha Mokshana, Sandhana Karma, Sangyaharana.

## Shalya Shadya Vyadhis (2:15/30)

Arbuda, Granthi, Vidradhi, Vishphota, Pidaka, Galaganda, Gandamala, Apachi, Shleepada Bhagna, Amlapitta, Shoola, Udara Roga, Guda Roga, Medra Roga.

- 1. Susrutha Samhita
- Astanga Hridava Samhitha
- 3. Ancient Indian Surgery Based on Susruta Samhita, G. D. Singhal
- 4. Ancient Hindu Surgery, G. Mukhopadhya

# SS 5102 Shalakya Tantra (Ayurveda ENT and Opthalmology) – I (4:30/60)

#### Nethra Roga (Eye Diseases) (2: 15/30)

Shalakya – Introduction, definition, history and development of Shalakya tantra, Yogya Shalyakarma (experimental surgery), Netra Sharira, Netra Pariksha, Netra Rakshana, Signs, symptoms and treatment procedures of eye diseases, Varthma (Eye Lids), Shukla (Sclera), Krishna (Cornea) Dristi and Sarvasara Netra Roga.

#### Shiro, Karna and Nasa Roga (2: 15/30)

Classification, signs, symptoms and treatment procedures of Sirasa roga. Karna Sharira (Anatomy), Karna Pariksha (examination of ear), signs and symptoms, treatment procedures of Karna Roga (Ear Diseases), Examination, signs and symptoms, treatment procedures of Nasa Roga (nasal disorders).

#### **Recommended Texts:**

- Charaka Samhitha
- 2. Sushrutha Samhitha
- 3. Ashtanga Hridaya Samhitha
- 4. Shalakya Thanthra, Dr. Ramanath Dwivedi
- 5. Abhinava Netra Roga Chikatsa, Dr. Ramanath Dwivedi

### SS 5201 Shalya Tantra (Ayurveda Surgery) – II (4:30/60

### Vrana Vignana and other Shalya Sadhya Vyadhis (2:15/30)

Varieties, causative factors, pathogenesis, signs and symptoms and examination. Vrana Shotha, Nadi Vrana, Sadyah Vrana, Pranashta Shalya Vignana, Vrana Chikitsa, Marma and Nila, Muthra Roga, Vruddhi.

# **Shalya – Nawya (2:30/00)**

Origin and development of modern surgery, latest surgical inventions, techniques and their advantages and disadvantages, acute traumatic wounds, ulcers, head injuries, shock, Management of a sinus and fistula, Management of peripheral vascular diseases and gangrene, management of diseases related to veins, management of diseases related to lymphatic system, Management of Diseases of muscles, tendons and fascia, Management of diseases related to bones and joints, Management of head injuries, management of diseases related to hand and foot, Management of diseases related to chest, management of diseases related to breast, Management of diseases related to abdomen, Management of

diseases related to anal canal and rectum, Management of diseases related to urinary system, Management of diseases related to the inguinal, scrotal or groin regions. Management of diseases related to male external genitalia, Radiotherapy, Imaging techniques (radiological examinations, utilization of x-ray, scan etc in diagnosis.

#### **Recommended Texts:**

- 1. Illustrated Susruta Samhita, Prof. K. R. Srikantha Murthy
- 2. Bailey and Love's Short Practice of Surgery, Charles V. Mann, R. C. G. Russell, Norman S. Williams
- 4. Minor Surgery text and atlas, John Stuart Brown

# SS 5202 Shalakya Tantra (Ayurveda ENT and Opthalmology) – II (4:45/30)

#### Mukha Roga (Oral Diseases) (2:15/30)

Mukha: Development of teeth and supportive structures, Danthodbhava (dentition status) examination of oral cavity, preventive measures of oral health, Dantha Kashtaka and its importance (natural toothbrush, its uses and importance) oral health rehabilitation methods, Ostha (lips), Dantha (teeth), Dantha moola (periodontal structures), Jihva (Tongue), Talu (Palate), Kanta (throat) and Sarvasara Mukha Roga – their Aetiology, clinical features and treatment procedures, Durudbhedana (malocclusion), community dentistry, Sandhana Karma (plastic surgery), Kriya Kalpa (special therapeutic procedures).

### Shalakya - Navya (2:30/00)

Eye diseases – Refractive errors, accommodation anomalies, conjunctivitis, pterygium, glaucoma, strabismus (squint), corneal ulcer, corneal opacities, episcleritis, scleritis, Staphyloma, iridocylitis, pan opthalmitis, cataract, vascular retinopathies, Retinal detachment, optic neuritis, papilloedema, common intra ocular tumours-blepharitis, hordeolum externum, chalazion, trichiasis, entropion, ectropion, ptosis.

#### Ear diseases

Acute and chronic suppurative otitis media, secretory otitis media, otitis externa, furuncle, otomycosis, otalgia, tinnitus, otosclerosis, meniere's disease, deafness, labyrinthitis common benign and malignant tumours of the ear.

#### **Diseases of Nose**

Diseases of external nose and nasal vestibule, nasal deformities, congenital and malignant tumours, furuncle / boil, stenosis and atresia of the nares, nasal septum and its diseases, deviated nasal septum, acute and chronic rhinitis, hypertrophic rhinitis. Atrophic rhinitis, rhinitis sicca, allergic rhinitis, vasomotor and other forms of non-allergic rhinitis, nasal polyps, epistaxis, common neoplasms of nasal cavity, acute and chronic sinusitis, oro-antral fistula.

#### **Diseases of Throat**

Pharyngitis, adenoids, tonsillitis, abscesses in relation to pharynx.

#### **Diseases of Oral Cavity**

Periodontal diseases, gingivitis and periodontitis, pericoronitis.

Odontogenic and non-odontogenic tumours.

Oral Cavity carcinomas common types, pre-malignant conditions, dental caries, Dental hard tissue disorders, glossitis, oral mucosal lesions, stomatitis.

#### **Recommended Texts:**

- 1. Netra Roga Vignana, Hansaraja
- 2. Parsons Eye Diseases
- 3. Diseases of the Nose, Throat and Ear, Logan Turners
- 4. Clinical Dentistry, R.W. Rowe
- 5. Clinical Periodontology, Stephen F. Rosensitel, Martin F. Land
- 6. Essentials of Dental Surgery and Pathology, R . A. Cawson

# 5103 Accupuncture (2:15/30) – (Optional Subject)

Fundamental theories of Acupuncture, oriental medicine and Western medicine, Theory of Yin and Yang, Five Element Theory, Theory of Visceral Phenomena, constitution and Disease, Zang-fu Organs, Causes of Disharmony, Diagnosis measures in oriental medicine, Acupuncture and Meridian, points of Meridians, application and treatment.

#### **Recommended Texts:**

- 1. Acupuncture in Oriental medicine, Han Gyu-eon
- 2. Chinese Acupuncture and Moxibustion, Zhang Enqin

# DEPARTMENT OF PRASUTITANTRA KAUMARABHRITYA (DEPARTMENT OF AYURVEDA GYNAECOLOGY, OBSTETRICS AND PAEDIATRICS)





### PK 5101 Balaroga (Ayurveda Paediatrics) – I (4: 45/30)

#### Sisu Paricharya (1:15/00)

Introduction and history of Kaumarabhritya, Bala kala vivarana (Stage of Childhood and classification of age), Navajatha shishu paricharya, Shishu pariksha, Vardhana, Sanvardhana, Danthodbhavaya and Danthodbhawakaleena roga (growth, development and dentition), Bala Sanskara and Raksha karma (child care and preventive measures), Navajatha and Balaka Poshanaya, Sthanya and Stanya vikurthi.

# Sisu Vyadhi (2: 15/30)

Sahaja roga (congenital diseases), Navajatha Vyadhi (neonatal disorders) Sankramika roga (infectious diseases) Romanthika, Laghu masoorika, Pashanagardabha, Galarohini, Kukkura kasa, Kuposhana janya roga (malnutrition) Grahani, Mandam, Pakkha.

# Balaroga-Navya (1:15/00)

Introduction to the subject, importance of child health, perinatal / neonatal / infant mortality in Sri Lanka, new born child: Examination of a new born, care of new born, pre term and small for date babies, their complications, birth Asphyxia and neonatal resuscitation, acute gastro enteritis, chronic diarrhoeas, upper and lower respiratory tract infections, Childhood tuberculosis and bronchial asthma, anemia in childhood, nutrition – iron deficiency, thalaseamia, diseases related to cardio vascular system: congenital heart diseases – cyanotic and acyanotic, heart failure in infancy and childhood, rheumatic fever, febrile convulsion/ epilepsy/management of fever, identification of paediatric emergencies, diseases related to urinary system; urinary tract infection, nephrotic syndrome.

#### **Recommended Texts:**

- 1. Kaumarabrithya Sangrahaya, A. P. G. Amarasinghe
- 2. Kashyapa Samhitha (Sinhala Translation), A. P. G. Amarasinghe
- 3. Balaroga (Second edition), R. M. P. Ranwala
- 4. Kaumarabrithya, D. M. Jayasinghe
- 5. Care of New born, M. Singh
- 6. Essential Pediatrics, O. P. Ghai

# PK 5102 Stree Roga and Prasiti Tantra (Ayurveda Gynaecology and Obstretics) – I (4: 30/60)

#### Rajo Vignana Yoni Vyapath and Arthava Vyapath (2: 15/30)

Anatomy of female body, female genital track, anatomical specialties of different periods of age in female, menarche and physiology of female genital organs), Rajo vignana – Rajomati, Rithumati, Arthava, Arthava Chakra, Rithumati Paricharya, Anatomy of the reproductive system of women, human ovary and ovulation. Diseases related to female genital tract. Menstrual disorders, Asrukdara, Soma Roga, Raktha Gulma, Granthi, Arbuda, Vandyathva (sub fertility).

### Sthana Vyadhi and Other Disease Conditions (2:15/30)

Sthana keelaka, Sthana vidradhi, Sthana granthi and arbuda, Oupasargika Roga (sexual transmitted diseases of women), female mental diseases and treatment, current knowledge and investigation used in gynaecology.

#### **Recommended Texts:**

- 1. Ayurveda Prasuthi Tanthra evam Sthree Roga, Premawathie Thivari
- Sthree Chikitsavaliya Saha Kamaroga Darshanaya Paparoga Nirakaranaya,
   D. H. I. Abhayarathna
- 3. Sthree Roga, C. Karunadasa

# PK5201 Bala Roga (Ayurveda Paediatrics) – II (4:30/60)

# Balaroga – I (2: 15/30)

Bala Jvara (fever), diseases related to Annavaha srothas (gastro intestinal tract), Kirivamanaya, Malabaddaya, Ullogam, Ksheeralasaka, Ajeerna, Ateesara, Chardi, Adhmana, Pandu, diseases related to Pranavaha srothas (respiratory tract), Kasa, Swasa, Ilappu, Pratishya, Peenasa, Thundikeri.

#### Balaroga - II (2: 15/30)

Charma roga (skin diseases) Ratagaya, Vata Raktha, Charmadala, Ahiputana, Kshudrakushta, Krimi roga (worm infestation), Balaka vata roga (neurological disorders) Pakshaghata, Ardita, Adarangaghata, Sarvangaghata, Sandi roga (diseases of joints) Amavata, Sandi shotha, Abhigathaja roga (traumatic diseases), Graha roga (diseases caused by astrological effects), mental health and related problems in children.

#### **Recommended Texts:**

- 1. Kaumarabrithya Sangrahaya, A. P. G. Amarasinghe
- 2. Balaroga (Second edition), Dr. R. M. P. Ranwala
- 3. Care of New born, M. Singh
- 4. Essential Pediatrics, O. P. Ghai





PK 5202 Stree Roga and Prasuti Tantra (Ayurveda Gynaecology and Obstretics) – II (6: 60/60)

# Garbha Vignana, Prasava Vignana and (Labour), Sutika Vignana (2:15/30)

Garbhavakranthi, Garbha Poshana, Masanumasika Vardhanaya, Garbhini Pareeksha, Garbhini Vignana, Garbhini Lakshana, Sadhyagruhitha/Vyaktha), Garbhini Paricharya, Garbhini Vyapath, Garbha Vyapath (fetal disorders), Garbha Srava, Garbha Patha, Leenagarbha, Upavishtaka, Garbha, Nagodara Garbha, Moodha Garbha. Prasava Vignana (labour), Sutika Vignana, (puerperium, puerperal care and disorders) Garbhanirodhaka Karma (contraceptive methods in Ayurveda).

### **Prasuti Navya (4: 45/30)**

Anatomy of the reproductive system of women, the human ovary and ovulation, gametogenesis and development of the embryo (embryology), antenatal care and maternal adaptation to pregnancy, fetal disorders, diseases of pregnant mothers, abortions, premature labour, antipartum hemorrhages, PIH, diabetes mellitus, nausea, vomiting. Normal labour and labour care, disorders relined to labour, puerperium stage and puerperal care. Diseases related to pueperium, contraceptive methods, gynecological malignancies, current knowledge on investigation used in obstetrics, sexual transmitted diseases, sub fertility (male/female).

#### **Recommended Texts:**

- 1. Prasava Vidhi Deepaniya, S. R. Rathnapala
- 2. Kaumarabrithya Sangrahaya, Dr. A. P. G. Amarasinghe
- 3. Kashyapa Samhitha (Sinhala Translation), A. P. G. Amarasinghe
- 4. Text book of Obstetrics, D. C. Dutta
- 5. Obstetrics, Ten teachers
- 6. Obstetric Illustrated, A. Miller R. Callander

# PK 5103 Reproduction and Genetics (1:15/00) – (Optional Subject)

Replication, gene expression, Cytogenetics and maternal inheritance, DNA finger printing testing, common inheritance diseases.

#### **Recommended Texts:**

- 1. Principles of Biochemistry, Nelson and Cok
- 2. Genes VIII

# DEPARTMENT OF DESHIYA CHIKITSA (DEPARTMENT OF INDIGENOUS SYSTEMS OF MEDICINE)



# DC4101 Deshiya Chikitsa (Indigenous Medicine) – I (4:45/30)

# **Basic Principles of Traditional Medicine and Peensa (1: 15/00)**

History, development and basic principles of traditional medicine in Sri Lanka, Traditional primary healthcare, Diagnostic methods including pulse diagnosis, Special traditional therapeutics measures, indigenous knowledge regarding the local medicinal herbs, Classification and traditional treatment for Peenasa and Gedi Vana Pilika.

# Akshi Roga, Devum Pilissum, Gedi Vana Pilika and Vata Roga (3: 30/30)

Diagnostic methods, classification, complications, and traditional management of Akshi roga, Devum Pillissum and Vata roga.

#### **Recommended Texts:**

- 1. Vaidika Sarasankshapa, Chandra R. S, Kumarasingha A.
- 2. Kasaya sangrahaya, Devamitta thera G. S.
- 3. Peenas Veda Potha, Girimananda thera B.
- 4. Wiedika Hasthasaraya, Aananda Mythree thera B.
- 5. Es Veda Potha, Daraniyagala P. A. P.

### DC4201 Desheya Chikitsa (Indigenous Medicine) – II (4: 30/60)

# Kedum Bindum Vedakama (Treatment of Fractures and Dislocations) (2: 15/30)

Traditional diagnostic methods, complications, traditional therapeutic measures of fractures and dislocations.

#### Sarpa Visa, Vidum Pilissum, Manasika Roga or Unmada (2: 15/30)

Identification and classification of poisonous snakes. Diagnostic methods and traditional treatment of snake bites. Detailed descriptions of Vidum and Pilissum. Nilasthana or vital points of the body. Traditional treatment of Vidum Pilissum. Classification and specific features of Manasika roga and their management.

#### **Recommended Texts:**

- 1. Yogarnavaya, Gnanavimala thera K, Jayathilaka W. V. P.
- 2. Perani Guli Kalka Potha, Gunasena D.
- 3. Purana Handhi Veda Potha, 7. Girimananda thera B.
- 4. Prayogarathnavliya, Gnanavimala thera K, Jayathilaka W. V. P.

# DC4102 Agada Tantra (Toxicology) – I (3:30/30)

### Fundamentals of Agadatantra (1: 15/00)

Definitions and terminology of varieties of poisons, Classification of toxic substances. Hinsaka visha, Aathmaghataka (suicidal), Parahatya (homicida), Balaka mara (infanticidal). Identification of Intoxication, Vishakanya, Vishadhata and Vishaktha bhojana, contamination of air, water and food and the purification processes, stages of toxication. Handiling a toxicated patient, Vishadansha, Visha vega and veganthara, Garavisha, Krithimavisha, Dushivisha and Visa sanghataka vishartha pareeksha. General treatment of a case of poisoning suvisi upakkrama (firstaid) and special management.

#### **Sthawara visa (2: 15/30)**

Kshayakaraka visha: Salphuric, nitric, hydrochloric, acitic, carbolic, oxalic acid and calcium oxide, zinc chloride, potassium cyanide. Ugra visha, phosphorus, chlorine, bromine, Iodine, Pasanam, Harithala, Manahshila, Anjana, Parada, Tamra, Yasada, Spatikari, Berium, Erandu Gunja, Arkaksheera, Niyagala, Hondala, Chitraka moola, Bhallataka, Ergot, Snuhiksheera manioc, hydrogen salpide, phenol, lead, arsenic, atropine, nadi visa, Ahiphena, chloroform, ether, chloral hydrate, Dhusthura beeja, Baladona, Ganja, Havosiamus, Karpura, Cocain, Godakaduru, Atirikta visha, Vachchanavi, Digitalis, Karaveera, Hydrocionic acid, Carbon dioxide and carbon monoxide, Kerosene and pesticides chemical combination. Currently used first aid and treatment in Sri Lanka. Poisons due to occupations. Commercial use of poisons and the law governing, purchasing, sale, storage, and transpoting. Aharaja visha and virudda ahara. Gara visha, Krutrima visha, dushi visha, Visha Sankata, Agro-chemicals, Addictive drugs.

#### **Recommended Texts:**

- 1. Visha vidya, K. G. P. Jayathilake
- 2. Sinhala Indigenous Medical (Poison) Sisira Kumara Liyinaarchchi
- 3. Sarpa Visha Vaidya Pradeepaya, Rev. Gunarathana Vanshalankara Thero
- 4. Astanga Hridaya

# DC4202 Agada Tantra (Toxicology) – II (2:15/30)

#### 1. Jangamavisa (2: 15/30)

Identification and varities of snakes, visha kriya. Methods of first aid, prevention and treatment, Keeta, Vrushchika, Luta, Mushika and Alarka poisons, 20 clinical presentations should be made with the association of O.P.D. and I.P.D of the Ayurveda Teaching Hospital. Educational Tours: Visits to the Zoological Garden for Special Lectures and Demonstrations. Traditional sarpa visha vedakama. (The treatment of snake bite). Visiting relevant places.

#### **Recommended Texts:**

- 1. Visha Veda Potha, Sisira Kumara Liyanaarchchi
- 2. Sasrutha Samhitha, Kalpasthanaya
- 3. Sarpavisha Sanharaya, Rev. Thalangama Gnanaloka Thero.
- 4. Visha Vaidya Rathnaya, Padma Hapugaspitiya
- 5. Charaka Samhitha

# DC4203 Principles of Traditional Chinese Medicine (2:30/00) – (Optional Subject)

# MS/SV/DV/KC/SW/SS/PK/DC 4101 Research Project (6)

Problem identification, investigation, data collection, analysis, interpretation, conclusion, scientific writing, scientific presentation.



#### **Curriculum Development and Evaluation Committee**

The following academic staff members were appointed to the above committee by the Board of Management of the Institute of Indigenous Medicine for the development and evaluation of this BAMS programme.

- 1. Dr. R. A. Jayasinghe, Director
- 2. Prof. A. P. G. Amarasinghe, Additional Director and Head, Department of Prasutitantra Kaumarabhritya
- 3. Dr. D. P. A. Dissanayaka, Head, Ayurveda Section and Head, Department of Shalya Shalakya
- 4. Dr. B. M. Nageeb, Head, Unani Section
- 5. Dr. I. G. P. Kulanatha, Head, Department of Maulika Siddhantha
- 6. Dr. S. M. K. Herapathdeniya, Head, Department of Dravyaguna Vignana
- 7. Dr. T. D. N. Karunaratne, Head, Department of Swasthavrittha
- 8. Dr. K. R. Weerasekara, Head, Department of Kayachikitsa
- 9. Dr. W. M. S. K. Kulathunga, Head, Department of Deshiya Chikitsa
- 10. Dr. P. R. Waratenna, Head, Department of Allied Sciences
- 11. Prof. Upul Sonnadara, Faculty of Science, University of Colombo Honorary Consultant
- 12. Dr. P. C. Pakeer Jauar, Head, Department of Special Needs Education, Open University of Sri Lanka Honorary Consultant
- 13. Mr. R. H. M. Piyasena, Member, Board of Management, Institute of Indigenous Medicine Honorary Consultant

