

SWAMINARAYAN UNIVERSITY
FACULTY OF AYURVEDA
Regulations and Syllabus of Post Graduate Course
Ayurveda MD/MS– Ayurveda Part-I

VISION

To emerge as a “Centre for Excellence” offering quality education and promoting advanced research methodologies

Excellent platform and guidance for scholars to transform themselves to skilled individuals for achieving global standard

MISSION

- Promotion of higher education with thorough strategy and measuring our progress through periodic evaluations
- We will pursue continuous development of infrastructure, enhance state-of-the-art equipment and facilities for scholars
- We aim to provide up-to-date technological and intellectually inspiring environment of learning, research, innovation and professional activities and inculcate ethics and moral values in all our scholars

OBJECTIVES

The objectives of the Master’s program are to equip scholars with the necessary

Skill sets:

- Teach, research, and provide their service, including interdisciplinary activities that contribute to the advancement of the field.
- Promoting and propagating research in Ayurvedic science through a framework that exceeds the boundaries of research fields and professional spheres.

- Implement superior research projects by proactively supporting the design, planning, and execution of individual research.
- Teach specialized knowledge and skills in Ayurvedic medical sciences, treatments

Section I

PROLOGUE

Ayurveda is the Upaveda of Atharva Veda. The Sanskrit term “Ayurveda” translates to “knowledge of life,” and the principles of this ancient wisdom remind us that the entire web of life is intricately interwoven. With a unique emphasis on total wellness, the art and science of Ayurveda work to harmonize our internal and external worlds.

The history and tradition of post-graduation and self-study (Swadhyaya) to enrich one’s own knowledge in all branches of learning can be traced to Upanishadic and Puranic literature. References about post-graduation are also available in Ayurvedic literature.

The ancient seers like Charaka and Sushruta have mentioned the aims and objectives of post-graduate education as follows: To get ability for exposition, to achieve fuller grasp of the meaning or nomenclature, for boldness, for dexterity in practice and success in treatment.

Section II

GOAL OF THE COURSE

The Master of Ayurvedic Medicine and Surgery program is a three-year post-graduate program which seeks to impart within the scholar’s knowledge of the vital areas of specialization in Ayurveda

Section III

OUR AIMS AND OBJECTIVES OF POST-GRADUATE EDUCATION

1. To produce good teachers
2. To turn out good research scholars
3. To train scholars to be a good practitioner
4. To impart specialist/specialized training in the various branches of Ayurveda

This is only possible when due attention is paid to build up confidence, initiative, resourcefulness and competency in particular speciality in the post-graduate program. Equal importance will be given to inculcate human attributes like compassion, honesty, character, capacity to work hard and a spirit of enquiry in the scholars.

ATTITUDE AND SKILLS

Rigorous training will be provided in classical knowledge along with comparative and critical study in the respective speciality.

- The emphasis shall be given on analytical and applied aspect of the subject
- Making use of information technology student shall have to acquire the knowledge about the methods and techniques of research in the respective fields
- Scholars from the clinical subjects shall be trained to manage the treatment and emergency care of the patient independently
- In the specialties like Shalya, Shalakya, Prasuti tantra and Stree Roga scholars shall have to undergo training of investigative procedures, techniques and performing surgical procedures.
- During the course of studies scholars shall be trained on different methods and technology of teaching.
- Scholars shall have to take part in teaching and training of undergraduate students and interns of the respective department/specialties.

Section IV

Draft Regulations governing M.D. /M.S. Ayurveda Preliminary (1st year)

1. Eligibility/Mode of Admission
2. Medium of instructions
3. Duration of course study and attendance
4. Course of study
5. Subject Taught, number of lectures/Practical, Demonstration for various subjects
6. Scheme of Examination of M.D./M.S.(Ayu) Part I

- a. Subjects of Examination
 - b.** Mode of examination and appointment of examiner(s)
 - c. Eligibility & Assessment
 - d. Question paper pattern
 - e. Practical Examination Pattern
 - f. Criteria for Pass
 - g. Declaration of Pass
7. Migration
 8. Dissertations
 9. Nomenclature of Degree to be awarded

1. Eligibility:

A person possessing the degree of Ayurvedacharya (Bachelor of Ayurveda Medicine and Surgery) from a recognized University or Board or medical institution specified in the Second Schedule to the Act and enrolled in Central or State register of Indian Systems of Medicine shall be eligible for admission in the post-graduate degree course.

- i. The Selection of candidates shall be made on the basis Post graduate entrance test (PGET) and ALLOTTMENT BY State Government Ayurveda board.
- ii. NRI student

2. Medium of Instruction:

Medium of Instruction - Shall be English/Hindi/Gujarati/Sanskrit (with a working knowledge of Sanskrit to serve the study).

3. Duration of course& Attendance:

- 3.1 The student shall have to undergo study for a period of three years after the admission.
- 3.2 The student shall have to attend minimum seventy-five percent. of total lectures, practical and clinical tutorials or classes to become eligible for appearing in the examination at the end of first academic year subject to the condition that his/her progress and conduct to be satisfactory by the principal. .
- 3.3 The student shall have to attend the hospital and other

duties as may be assigned to him during the course of study.

3.4 The student of clinical subject shall have to do resident duties in their respective departments and student of non-clinical subject shall have duties in the respective departments like Pharmacy or Herbal Garden or Laboratory during the course of study.

3.5 The student shall attend special lectures, demonstrations, seminars, study ,tours and such other activities as may be arranged by the teaching departments.

3.6 The maximum duration for completion of the course shall not exceed beyond the period of six years from the date of admission to the course.

3.7 Web based centralized biometric attendance system shall be required for the attendance of post-graduate students and manual attendance at department level in which student is pursuing the post-graduate course.

4. Course of study:

All the candidates admitted for P G (M.D. / M.S. Ayurveda) are required to pursue the recommended duration for at least three academic years as full time candidates out of which;

- a) Preliminary course for one year-M.D./M.S. Part1 and
- b) Speciality course for two years-M.D./M.S.part2
- c) Subject Taught, number of lectures/Practical, Demonstration for various subjects

5. Subject Taught, number of lectures/Practical, Demonstration for various subjects & method of training

Sr No	Paper	Hours	
		Theory	Practical

1.	Research Methodology & medical statistics	200	100
2.	Moulik Sidhanta related to respective Specialisation	100	100

Part A – Applied aspects of fundamentals
regarding concerned subject

Part B – Concerned subject

- i. In the first year of the course, the students shall have to acquire knowledge in the applied aspects of the fundamentals of Ayurveda
- ii. Intensive training shall be provided in classical knowledge along with comparative and critical study in the respective specialty.
- iii. The emphasis shall be given on intensive applied and hands on training.
- iv. The student shall have to acquire the knowledge about the methods and techniques of research in the respective fields making use of information technology.
- v. In clinical subjects, student shall under take responsibility in management and treatment of patients independently and deal with emergencies.
- vi. The student shall have to undergo training in the department concerned and shall maintain month-wise record of The work done during the study in the specialty opted by him/ Her as under:-
 - (a) Study of literature related to specialty;
 - (b) Regular clinical training in the hospital for student of clinical subject;
 - (c) practical training of research work carried out in the department, for student of pre-clinical and para clinical subject;
 - (d) participation in various seminars, symposia and discussions; and
 - (e) Progress of the work done on the topic of dissertation.

6. Scheme of University Examination of M.D. /M.S. (Ayu) Part I:

6.1 Subjects of Examination. -

- The preliminary examination at the end of one academic year after admission shall be conducted in the following subjects, namely:-

Paper I-Research Methodology and Bio or Medical Statistics;

Paper II- Applied aspects regarding concerned subjects.

Sr No	Paper	Hours	
		Theory	Practical
1.	Research Methodology & medical statistics	100	100
2.	Moulik Sidhanta (related to respective Specialisation)	100	100

Part A-Applied aspects of fundamentals regarding concerned subject

Part B – Concerned subject

6.2 Mode of examination and appointment of examiner(s)-

- The preliminary examination – examination shall be held in written, practical or clinical and oral examination.
- The preliminary Practical examination shall be conducted by a team of two examiners, out of which one examiner shall be external from any other institution
- A teacher with five years teaching or research experience in concerned subject or speciality shall be considered eligible for being appointed as an examiner.

6.3 Eligibility & Assessment:

- The preliminary examination shall be conducted at the end of one academic year after admission;
- Examination shall ordinarily be held in the month of June or July and November or December every year;
- The examination shall be aimed to test the clinical acumen, ability and working knowledge of the student in the practical aspect of the specialty and his/her fitness to work independently as a specialist.
- The clinical examination shall be judge the competence of the student in Ayurveda and scientific literature of the specialty.
- The *viva-voce* part of the practical examination shall involve extensive discussion on any aspect of the subject or specialty.

6.4 Theory Question Paper Pattern of M.D./M.S.-Part I:

Sr No	Type of Questions	No of Questions	Marks per Questions	Total Marks
1.	Long Essay Questions	4	10	40
2	Short Essay Questions	12	5	60
Total marks				100

6.5 Clinical/ Practical and Oral Examination marks Division:

Structured Practical Pattern Is mentioned separately in Individual Subject Syllabus

Sr No	Particulars	Details	Marks distribution
1.	Records	25 OPD Case Sheets of concerned subject 25 IPD Case Sheets of concerned subject	10
2.	Bedside Clinical case taking	Long Case Short case	20 10
3.	Spotting	10 Spotters (Identification of given instruments/specimen/X Ray/Medicines/Picture of Diseased lesion/deformities, Laboratory etc)	10
4	Procedures	Demonstration of procedures	10
5.	Viva voce	Internal External	10 10
6.	Synopsis presentation	-	20

- **For Samhita & Siddhant:**

Sr. No	Particulars	Details	Marks distribution
1.	Spot	10 Spotters	20
2.	Journal	3-5 published article compilation and analysis related to synopsis topic	20
3.	Viva1	General subject related viva	30
4	Viva2	Synopsis presentation and viva on synopsis	30

● **For Roga Nidana & Vikriti Vigyan:**

No.	Particulars	Details	Marks distribution
1	Case record(25 Cases)	15OPD case sheets &10IPDcasesheets	10
2	Long case	Detailed history taking of IPD case	20
3	Short case	History taking of OPD case	10
4	Laboratory Practical	Performance of biochemistry & pathology practical	20
5	Interpretation - ECG,EEG,X-ray, CT-Scan, MRI and USG	Radiological images	10
6	Laboratory Experiment record	Log book of laboratory experiment	10
7	Viva-voce	PartA-10 Marks	20
		PartB-10Marks	

6.6 Criteria for Pass:

- For being declared successful in the examination, student shall have to pass all the subjects separately in preliminary examination;
- The student shall be required to obtain minimum fifty percent marks in practical and theory subjects separately to be announced as pass;
- If a student fails in preliminary examination, He/ She shall have to pass before appearing in the final examination;
- The subsequent examination for failed candidates shall be conducted at every six months interval
- A student failed in one subject may be allowed to keep the term in 2nd M.D./M.S. part II course
- However a student failed in more than one subject of part I examination will not be allowed keeping term in M.D./M.S. part II

6.7 Declaration of Pass:

- A Candidate obtaining 50% and more, but less than 60% of the marks in the grand total in the first attempt shall be declared to have passed the examination in The Second class.
- A Candidate obtaining 60% and more, but less than 75% of the marks in the grand total in the first attempt shall be declared to have passed the examination in the First class.
- A Candidate obtaining 75% or more of the marks in the grand total in the first attempt shall be declared to have passed the examination in distinction
- A candidate passing a University examination in more than one attempt shall be placed in pass class irrespective of percentage of marks secured by him/her in the examination

7. Migration:

The Students are not allowed take migration to continue his/ her study to another college during entire course of study

8. Dissertation:

- Every candidate pursuing Post Graduate degree course is required to carry out research work on these selected research project (The subject of every dissertation shall be research oriented, practical oriented, innovative and helpful in

the development of Ayurveda system and the subject of the dissertation shall have relation with the subject matter of the specialty) under the guidance of Recognized Postgraduate Teacher. The result of such work shall be submitted in the form of a dissertation.

- The dissertation is aimed to train a postgraduate student in research methodology. It includes Research problem, Literature review, forming hypothesis, research design, collection of data, data analysis, and drawing conclusion.
- The synopsis of the proposed scheme of work shall indicate the expertise and action plan of work of the student relating to the proposed theme of work, the name of the department and the name and designation of the guide or supervisor and co-guide (if any).
- The title of the dissertation along with the four copies of synopsis; with approval of the Ethics Committee constituted by the institute as per regulations shall be submitted to the University within a period of six months from the date of commencement of the post-graduate course on or before the dates notified by Swaminarayan University. The synopsis shall be sent through the proper channel.
- The submitted synopsis will be reviewed by the Scrutiny committee constituted by the University and the dissertation topic will be registered. No Change in the title of synopsis or guide shall be made without prior approval of the University.
- If the student fails to submit the title of dissertation and synopsis within the period his /her terms for final post-graduate course shall be extended for six months or more in accordance with the time of submission of the synopsis to the University.
- The University shall approve the synopsis not later than three months after submission of the synopsis.
- No student shall be allowed to submit the dissertation before six months of completion of course and the student shall continue his regular study in the institution after submission of dissertation to complete three years.
- The dissertation shall contain the methods and data of the research carried out by the student on the problem selected by him /her and completed under the guidance of the guide or supervisor approved by the University.

- The dissertation shall consist of critical review of literature, methodology, results of the research, discussion on the basis of research findings of the study, summary, conclusion, and references cited in the dissertation shall be suitable for publication.
- The dissertation shall consist of not less than forty thousand words, shall not exceed 150 pages excluding references, tables and other annexure. It should be neatly typed in double line spacing on one side of the paper (A4 size) with a font size of 12, style Times New Roman and bound properly.
- The dissertation shall contain, at the end, a summary of not more than one thousand and five hundred words and the conclusion not exceeding one thousand words.
- Five copies of the bound dissertation along with a certificate from the supervisor or guide shall reach the University on or before the date notified by the University.
- The dissertation shall be assessed by two external examiners and two internal examiners appointed by the University.
- The dissertation shall be accepted only after the approval of examiners appointed and in case of disapproval by one external examiner; the dissertation shall be referred to third external examiner approved by the University concerned.
- If the dissertation is not accepted by two external examiners, the same shall be returned to the student with the remarks of the examiners and the student shall resubmit the dissertation after making necessary improvement in the light of examiners' report to the University within a further period of six months.
- The student shall be permitted to appear in the final examination of post-graduate degree course only after approval of the dissertation by the examiners.
- Inter-disciplinary research may be done by co-opting the guide or supervisor from the concerned specialty.
- If a para-clinical or pre-clinical subject student takes a thesis topic involving clinical trials then he/she shall work under co-guide of a clinical teacher of the specialty concerned for preparing the thesis.

9. Nomenclature of the Degree to be awarded;

(AsperGazetteNo397,Dated07/11/2016)

Sr No	Nomenclature of Specialty or Degree	Abbreviation
Pre-clinical specialty		
1.	Ayurveda Vachaspati–Ayurveda Samhita evum Siddhant	M.D. (Ayurveda)- Compendium and Basic Principles
Para Clinical Speciality		
2.	Ayurveda Vachaspati–Roga Nidana evam Vikriti Vigyana	M.D. (Ayurveda)- Diagnostic procedure and Pathology
Clinical Speciality		
3	Ayurveda Vachaspati–Kayachikitsa	M.D. (Ayurveda)- Medicine
4	Ayurveda Dhanvantari–Prasuti evam Stri Roga	M.S. (Ayurveda)- Obstetrics and Gynecology
5.	Ayurveda Dhanvantari–Shalya	M.S.(Ayurveda)- Surgery

SECTION V

I. TRAINING PROGRAMS

It is essential to monitor the learning process of each scholar through continuous appraisal and regular assessment. This helps teachers to evaluate scholars, also scholars to evaluate themselves. Scholar has to participate in the below mentioned training programs conducted by the concern department.

II. DEPARTMENTAL PRESENTATIONS BY SCHOLAR:

- a) Classical Text Review
- b) Departmental seminar
- c) Shloka analysis
- d) Journal article review
- e) Clinical Presentation
- f) Analysis of concern to pictures related to subject
- g) Formulations
- h) Investigations
- i) Instruments
- j) Interdepartmental seminar

III. ACADEMIC ACTIVITIES:

- a) National/International seminar participation
- b) Research article publication
- c) Compilation/case record
- d) Conduct of UG theory classes
- e) Conduct of UG practical classes

IV. GROUP ACTIVITIES:

- a) Group discussion
- b) Clinics
- c) Institutional visits
- d) Field visits
- e) Conduct of survey
- f) Practical-1)Incollege2)Inotherrecognizeddept/establishmentlaboratories

V. SUBJECTWISE PRACTICAL / CLINICAL RECORDS:

Scholar has to conduct and record practical/clinical case study in RECORD BOOK and shall be certified by the Head of the Department and Head of the Institution, and presented in the University Practical/ Clinical examination.

- i. For clinical/Para clinical departments- 50 cases

(25-OPD&25-IPD)

Pre& Para clinical departments - 20 cases

(10-OPD&10 IPD)

SECTION VI

MODEL EVALUATION LIST

Assessment of scholar's activities helps to improve their performance. Each activity shall be assessed by at least two teachers from first, second and third year. All the observations summarized and suggestions made at the end of respective presentation/activity.

A. DEPARTMENTAL SEMINAR

NAME OF THE SCHOLAR:

TOPIC:

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Narration of the OBJECTIVES of the Topic				
2	Understanding of the subject & content				
3	Organizing the matter in Logical sequences				
4	Use of specific cross references, examples to explain subject				
5	Incorporation of own Research Views				
6	Presentation skill (Body language, Language fluency, change of pace etc)				
7	Answering skill to the question				
8	A/V aid use				
9	Critical analysis of the subject				
10	Summarize the matter at the end				
	TOTAL				

Suggestions:

Date:

Sign &Name:

B. SHLOKA SEMINAR

NAME OF THE SCHOLAR:

Shloka:

Reference:

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Narration of the OBJECTIVES of Topic				
2	Breakup of shloka				
3	Use of specific cross references, examples to explain subject				
4	Collection & explanation skill of the Matter				
5	Understanding of the subject				
6	Incorporation of own research views				
7	Presentation skill (body language, A/V aid use, change of pace, language fluency etc)				
8	Organizing matter in logical sequence				
9	Answering skill to the question				
10	Summarizing the matter at the end				
	TOTAL				

Suggestions

Date:

Sign & Name

C. ANALYSIS SEMINAR

NAME OF THE

SCHOLAR:

NAME OF THE

TECHNIQUE:

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Narration of the OBJECTIVES of Topic				
2	Narration of History, types of technique				
3	Description of the technique				
4	Narration of Method of use, unit & applied aspects				
5	Narration of its limitations, precautionary measures				
6	Collection of the Matter				
7	Organizing matter in logical sequence				
8	Presentation skill (body language, A/V aid use, change of pace, Language fluency etc)				
9	Answering skill to the question				
10	Summarizing the matter at the end				
	Total				

Suggestions

Date

Sign & name

D. FORMULATION SEMINAR

NAME OF THE PRESENTER:

Formulation:

Reference:

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Narration of the OBJECTIVES of Topic				
2	Assessment of ingredients using cross references				
3	Assessment of Pharmacodynamics of ingredients				
4	Explanation of applied aspects				
5	Explanation of quality tests (Shastri/Lab)				
6	Explanation of related recent Research Works				
7	Incorporation of own research views				
8	Presentation skill (body language, A/V aid use, Change of pace, language fluency etc)				
9	Answering skill to the question				
10	Summarizing the matter at the end				
	TOTAL				

Suggestions:

Date:

Sign &Name:

E. INSTRUMENT SEMINAR

NAME OF THE

PRESENTER:

NAME OF THE INSTRUMENT:

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Narration of the OBJECTIVES of Topic				
2	Narration of History, types of instruments				
3	Description of the Instrument				
4	Narration of Method of use, unit & applied aspects				
5	Narration of its limitations, precautionary measures				
6	Collection of the Matter				
7	Organizing matter in logical sequence				
8	Presentation skill (body language, A/V aid use, Change of pace, Language fluency etc)				
9	Answering skill to the question				
10	Summarizing the matter at the end				
	Total				

Suggestions

Date

Sign & Name

F. INVESTIGATION SEMINAR

NAME OF THE

PRESENTER:

TITLE:

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Narration of the OBJECTIVES of topic				
2	Narration of History, types of investigation & instruments / equipment used				
3	Narration of method of Investigation				
4	Narration of method of calibration & possible errors				
5	Narration of its application & Incorporation of own Research views				
6	Presentation skill (body language, A/V aid use, change of pace Language fluency etc)				
7	Organizing matter in logical sequence				
8	Answering skill to the question				
9	Understanding of the subject				
10	Summarizing the matter at the end				
	TOTAL				

Suggestions:

Date:

Sign & Name:

G. CLASSICAL TEXT REVIEW

NAME OF THE PRESENTER:

CLASSICAL TEXT

TITLE:

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Narration of the OBJECTIVES of topic				
2	About Author, commentators, publication				
3	About content, volume, chapters				
4	Uniqueness of the text				
5	Incorporation of own views				
6	Presentation skill (body language, A/V aid use, Change of pace etc)				
7	Language fluency				
8	Organizing matter in logical sequence				
9	Answering skill to the question				
10	Summarizing the matter at the end				
	TOTAL				

Suggestions:

Date:

Sign &Name:

**H ARTICLE PUBLISHED IN
JOURNAL/PERIODICAL**

NAME OF THE PRESENTER:

TITLE:

JOURNAL/PERIODICAL

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Article & Journal/Text selected				
2	Narration of the OBJECTIVES of Article				
3	Understanding of the subject				
4	Use of specific cross references, examples to explain subject				
5	Incorporation of own research views				
6	Presentation skill (body language, A/V aid use, Change of pace etc)				
7	Language fluency				
8	Organizing matter in logical sequence				
9	Answering skill to the question				
10	Summarizing the matter at the end				
	TOTAL				

JOURNAL/PERIODICAL:

Suggestions:

Date:

Sign &Name

I. CLINICAL

PRESENTATION

NAME OF THE

PRESENTER:

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Narration of the OBJECTIVES				
2	Completeness of the History				
3	Accuracy of general physical examination				
4	Incorporation of own research views				
5	Diagnosis-whether it follows logically from History & findings				
6	Organizing matter in logical sequence				
7	Investigation required, interpretation of investigations				
8	Ability to defend diagnosis & to justify differential Diagnosis				
9	Justification of Line of treatment				
10	Presentation skill (body language, A/V aid use, change of pace, Language fluency etc)				
11	Answering skill to the question				
	TOTAL				

Suggestions:

Date:

Sign &Name:

J. UG TEACHING SKILLS

Date-

NAME OF THE TEACHER:

SUBJECT:

No	OBSERVATIONS	Excellent	Good	Average	Poor
1	Raised interest in the beginning relating to topic by questing or by throwing new idea				
2	Specified the OBJECTIVES of presentation				
3	Teaching material organized in a logical sequence				
4	Used relevant content matter				
5	Changed pace of presentation				
6	Used specific examples to explain subject				
7	Used non-verbal clues, eye contact, etc				
8	Used teaching aids effectively				
9	Allowed questions from students				
10	Asked questions to students				
11	Rewarded students answers/questions				
12	Summarized the matter at the end				

Suggestions:

Date:

Sign & Name:

SECTION VII

LOGBOOK:

The log book is a record of events, presented in a systematic manner. Logbook is *intended to develop, record, assess and certify student`s activities during clinical and other rotations & trainings. There cord includes academic activities as well as the presentations and procedures, etc, carried out by the scholar throughout the PG study.* Hence, every PG scholar must maintain a log book for the record of each and every teaching, learning, training, evaluation activities he/she participated. Internal assessment is based on the evaluation of the logbook.

CONTENT OF THE LOGBOOK:

1	Subject seminar presented
2	Analysis seminar attended
3	Analysis seminar presented
4	Classical text review seminar attended
5	Classical text review seminar presented
6	Clinical case presentation attended
7	Clinical case presented
8	Clinical seminar attended
9	Clinical seminar presented
10	Synopsis/dissertation activity
11	Formulation seminar attended
12	Formulation seminar presented
13	General seminar attended
14	General seminar presented
15	Instrument seminar attended
16	Instrument seminar presented
17	Interdepartmental seminar attended
18	Investigation seminar attended
19	Investigation seminar presented
20	Journal article review attended
21	Journal article review presented

22	Practical/clinical attended
23	Research article published
24	Seminar/workshop/conference attended
25	Paper/poster presentation in seminar/conference
26	Shloka seminar attended
27	Shloka seminar presented
28	Subject seminar attended
29	Theory class attended
30	UG practical classes conducted
31	UG theory classes conducted

SECTION VIII**SYLLABUS****PAPER I- RESEARCH METHODOLOGY & MEDICAL STATISTICS**

Name Of The Subject: Research Methodology and Medical Statistics		
Theory-200 Hours	Practical- 100 Hrs.	
Theory-100 Marks	Practical-100 Marks	
Part - A		
Marks-60	Research Methodology	120 Hours
UNIT	CONTENT	HRS
1	Introduction to Research A. Definition of the term research B. Definition of the term anusandhan C. Need of research in the field of Ayurveda	3
2	General guidelines and steps in the research process A. Selection of the research problem B. Literature review: different methods (including computer database) with the advantages and limitations C. Defining research problem and formulation of hypothesis D. Defining general and specific objectives E. Research design: observational and interventional, descriptive and analytical, preclinical and clinical, qualitative and quantitative F. Sample design G. Collection of the data H. Analysis of data. I. Generalization and interpretation, evaluation and assessment of hypothesis. J. Ethical aspects related to human and animal experimentation. K. Information about Institutional Ethics Committee (IEC) and Animal Ethics Committee (AEC) and their functions. Procedure to obtain clearance from respective committees, including filling up of the consent forms and information sheets and publication ethics.	18

3	Preparation of research proposals in different disciplines for submission to funding agencies taking EMR-AYUSH scheme as a model.	5
4	Scientific writing and publication skills a. Familiarization with publication guidelines- Journal specific and CONSORT guidelines. b. Different types of referencing and bibliography. c. Thesis/ Dissertation: contents and structure d. Research articles structuring: Introduction, Methods, Results and Discussions (IMRAD)	5
5	Classical Methods of Research Concept of Pratyakshadi Pramana Pariksha, their types and application for Research in Ayurveda. Dravya- Guna-Karma-Parikshana Paddhati Aushadhi-yog Parikshana Paddhati Swastha, Atura Pariksha Paddhati Dashvidha Parikshya Bhava Tadvidyasambhasha, vadmarga and tantrayukti	10
6	Comparison between methods of research in Ayurveda (Pratigya, Hetu, Udaharana, Upanaya, Nigaman) and contemporary methods in health sciences.	3
7	Different fields of Research in Ayurveda A. Fundamental research on concepts of Ayurveda B. Panchamahabhuta and tridosha. C. Concepts of rasa, guna, virya, vipak, prabhav and karma Concept of prakriti-saradibhava,ojas,srotas,agni,aamandkoshtha.	6
8	Literary Research- Introduction to manuscriptology: Definition and scope. Collection, conservation, cataloguing. Data mining techniques, searching methods for new literature; search of new concepts in the available literature. Methods for searching internal and external evidences about authors, concepts and development of particular body of	8

	knowledge.	
9	<p>Drug Research (Laboratory-based)-Basic knowledge of the following: Drug sources: plant, animal and mineral. Methods of drug identification. Quality control and standardization aspects: Basic knowledge of Pharmacopoeial standards and parameters asset by Ayurvedic Pharmacopoeia of India. Information on WHO guidelines for standardization of herbal preparations. Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP).</p>	20
10	<p>Safety aspects: Protocols for assessing acute, sub-acute and chronic toxicity studies. Familiarization with AYUSH guidelines(Rule170), CDCSO and OECD guidelines.</p>	5
11	<p>Introduction to latest Trends in Drug Discovery and Drug Development-Brief information on the traditional drug discovery process- Brief information on the latest trends in the Drug Discovery process through employment of fractional approach techniques; anti-sense approach, use of micro and macro-arrays, cell culture based assays, use of concepts of systems biology and network physiology -Brief introduction to the process of Drug development</p>	10
12	<p>Introduction to Clinical Research Methodology identifying the priority areas of Ayurveda Basic knowledge of the following:- Observational and Interventional studies Descriptive & Analytical studies Longitudinal & Cross sectional studies Prospective & Retrospectives studies Cohort studies Randomized Controlled Trials(RCT) & their types Single-case design, case control studies, ethnographic studies, black box design, cross-over design, factorial design. Errors and bias in research.</p>	18

	New concepts in clinical trial- Adaptive clinical trials/ Good clinical practices (GCP) Phases of Clinical studies: 0, 1, 2, 3, and 4. Survey studies- Methodology, types, utility and analysis of Qualitative Research methods. Concepts of in-depth interview and Focus Group Discussion.	
13	Pharmacovigilance for ASU drugs. Need, scope and aims & objectives. National Pharmacovigilance Programme for ASU drugs.	3
14	Introduction to bioinformatics, scope of bioinformatics, role of computers in Biology. Introduction to Database- Pubmed, Medlar and Scopus. Accession of databases.	3
15	Intellectual Property Rights- Different aspect and steps in patenting. Information on Traditional Knowledge Digital Library (TKDL).	3

Part - B		
Marks-40	MEDICAL STATISTICS	80 Hours
UNIT	CONTENT	HRS
1	Definition of Statistics: Concepts, relevance and general applications of Biostatistics in Ayurveda	3
2	Collection, classification, presentation, analysis and interpretation of data (Definition, utility and methods)	5
3	Scales of Measurements - nominal, ordinal, interval and ratio scales. Types of variables – Continuous, discrete, dependent and independent variables. Type of series – Simple, Continuous and Discrete	3 3 2
4	Measures of Central tendency – Mean, Median and Mode.	5
5	Variability: Types and measures of variability – Range, Quartile deviation, Percentile, Mean deviation and Standard deviation	5

6	Probability: Definitions, types and laws of probability	3
7	Normal distribution: Concept and Properties, Sampling distribution, Standard Error, Confidence Interval and its application in interpretation of results and normal probability curve.	4
8	Fundamentals of testing of hypotheses: Null and alternate hypotheses, type I and type 2 errors. Tests of significance: Parametric and Non-Parametric tests, level of significance and power of the test, 'P' value and its interpretation, statistical significance and clinical significance	2 6
9	Univariate analysis of categorical data: Confidence interval of incidence and prevalence, Odds ratio, relative risk and Risk difference, and their confidence intervals	6
10	Parametric tests: 'Z' test, Student's 't' test: paired and unpaired, 'F' test, Analysis of variance (ANOVA) test, repeated measures analysis of variance	6
11	Non parametric methods: Chi-square test, Fisher's exact test, McNemar's test, Wilcoxon test, Mann-Whitney U test, Kruskal-Wallis with relevant post hoc tests (Dunn)	8
12	Correlation and regression analysis: Concept, properties, computation and applications of correlation, Simple linear correlation, Karl Pearson's correlation co-efficient, Spearman's rank correlation. Regression-simple and multiple.	5
13	Sampling and Sample size computation for Ayurvedic research: Population and sample. Advantages of sampling, Random (Probability) and nonrandom (Non-probability) sampling. Merits of random sampling. Random sampling methods-simple random, stratified, systematic, cluster and multiphase sampling. Concept, logic and requirement of sample size computation, computation of sample size for comparing two means, two proportions, Estimating mean and proportions.	6
14	Vital statistics and Demography: computation and applications - Rate, Ratio, Proportion, Mortality and fertility rates, Attack rate and hospital-related statistics	4
15	Familiarization with the use of Statistical software like SPSS/Graph Pad	4

PRACTICAL NAME		
NO	CONTENT	HOURS
1	<p>Pharmaceutical Chemistry</p> <p>Familiarization and demonstration of common lab instruments for carrying out analysis as per API</p>	20
2	<p>Awareness of Chromatographic Techniques</p> <p>Demonstration or Video clips of following:</p> <ul style="list-style-type: none"> • Thin-layer chromatography (TLC). • Column chromatography (CC). • Flash chromatography (FC) • High-performance thin-layer chromatography (HPTLC) • High-Performance (Pressure) Liquid Chromatography (HPLC) • Gas Chromatography (GC, GLC) 	28
4	<p>Pharmacognosy</p> <p>Familiarization and Demonstration of different techniques related to:- Drug administration techniques-oral and parenteral. Blood collection by orbital plexus puncturing. Techniques of anesthesia and euthanasia. Information about different types of laboratory animals used in experimental research Drug identification as per API including organoleptic evaluation</p>	6
5	<p>Pharmacology and toxicology</p> <p>Familiarization and demonstration of techniques related to pharmacology and toxicology</p>	20

6	Biochemistry(Clinical) Familiarization and demonstration of techniques related to basic instruments used in a clinical biochemistry laboratory – semi and fully automated clinical analyzers, electrolyte analyzer, ELISA-techniques, nephelometry. Demonstration of blood sugar estimation, lipid profiles, kidney function test, liver function test, .HbA1, cyst and microalbumin estimation By nephelometry or other suitable techniques. Interpretation of the results obtained in the light of the data on normal values.	20
7	Clinical Pathology Familiarization and demonstration of techniques related to basic and advanced instruments used in a basic clinical Pathology lab. Auto cell counter, urine analyzer, ESR, microscopic examination of urine.	16
8	Imaging Sciences Familiarization and demonstration of techniques related to imaging techniques. Video film demonstration of CT-Scan, MRI-scan and PET-scan.	8
9	Clinical protocol development	2

II. MEDICAL STATISTICS

Practical hours: 20

Statistical exercise of examples from Topic number 4, 5, 8-12, 14, 15

Records to be prepared

Distribution of marks (practical):

1. Instrumental spotting test - 20 marks
 2. Clinical protocol writing exercise on a given problem – 20 marks
- Records
3. Research methodology – 10 Marks
 4. Medical statistics – 10 Marks
 5. Viva voce – 40 Marks

REFERENCE BOOKS:-

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2. Drug Survey by Mayaram Uniyal
3. Fahn A (1981). Plant Anatomy 3rd Edition Pergamon Press, Oxford
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1. Ayurvedic Pharmacopoeia of India. Part I- volume 1 to 8 and Part II- volume 1 to 3. Ministry of Health and Family Welfare. Controller of Publication. Govt of India. New Delhi.
2. Brain, KR and Turner, TD. (1975). The Practical Evaluation Phytopharmaceuticals. Wright Scientechnica, Bristol.
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8. Laboratory Guide for- The Analysis of Ayurved and Siddha Formulations – CCRAS, New Delhi.
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12. Rangari V.D., Pharmacognosy & Phytochemistry, Vol I, II, Career Publication,
13. Sharma BK. Instrumental Methods of Chemical Analysis by, Goel Publishing House.
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3. Altick and Fenstermaker. (2007).*The Art of Literary Research*. 4th ed. W. W. Norton. Castle, Gregory. *Blackwell Guide to Literary Theory*. Blackwells,
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7. Deepika Chawla and Neena Sondhi. (2011). Research Methods- Concepts and cases. New Delhi: Vikas Publishing House.
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 - 13- Kulkarni S.K.: *Hand Book of Experimental Pharmacology, Vallabh Prakashan, New Delhi*
 - 14- Ravindran R.: *X-Pharm (Software), Indian Journal of Pharmacology, JIPMER, Pondicherry.*

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9. <http://www.dsr.nic.in/reports/tifp/database/metallo.pdf>.
10. www.consort-statement.org
11. www.strobe-statement.org
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Medical Statistics:

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15. Suhas Kumar Shetty- Medical statistics made easy

SECTION IX
PAPER-II
SYLLABUS OF PRE AND PARA-CLINICAL SUBJECTS

❖ **PRE-CLINICAL SUBJECT:**

1. AYURVED SAMHITA & SIDDHANT

THEORY - 100 Hours

THEORY: 100 marks

PRACTICAL: 100 Marks

PART A (50 MARKS)

Unit	Contents	Hours
1	Learning and Teaching methodology available in Samhita- Tantrayukti, Tantraguna, Tantradasha, Tachchilya, Vadamarga, Kalpana, Arthashraya, Trividha Gyanopaya, teaching of Pada, Paada, Shloka, Vakya, Vakyaartha, meaning and scope of different Sthana and Chatushka of Brihatrayee	15
2	Manuscriptology - Collection, conservation, cataloguing, Critical editing through collation, receion (A critical revision of a text incorporating the most plausible elements found in varying sources), emendation (changes for improvement)and textual criticism(critical Analysis) of manuscripts. Publication of edited manuscripts.	6
3	Concept of Bija chatustaya (Purush, Vyadhi, Kriyakaal, Aushadha according to Sushrut Samhita).	10
4	Introduction and Application of Nyaya (Maxims) - Like Shilaputrak Nyaya, Kapinjaladhikaran Nyaya, Ghunakshara Nyaya, GobalivardaNyaya, Naprishtah Guravo Vadanti Nyaya, Shringagrahika Nyaya, ChhatrinoGacchhantiNyaya, ShatapatrabhedanaNyaya, Suchikatah Nyaya.	5
5	Importance and utility of Samhita in present era.	4
6	Importance of ethics and principles of ideal living asmentioned in Samhita in the present era in relation to lifestyle disorder s.	5
7	Interpretation and co-relation of basic principles with contemporary sciences.	5

PART B (50MARKS)

Unit	Contents	Hours
1	Definition of Siddhanta, types and applied examples in Ayurveda	3
2	Ayu and its components as described in Samhita	3
3	Principles of Karana-Karyavada, its utility in advancement of Research in Ayurveda	6
4	Srishti Utpatti, its process acc: to Ayurveda and Darshana	3
5	Importance and utility of Triskanda and their need in teaching, research and clinical practice	5
6	Applied aspects of various fundamental Principles, Scope and importance of Pariksha (Pamana)	15
7	Importance of knowledge of Sharir Prakriti and Manasa Prakriti	5
8	Comparative study of Principles of Ayurveda and Shad Darshanas	10

PRACTICAL: 100 MARKS DISTRIBUTION

Sr. No	Particulars	Details	Marks distribution
1.	Spot	10Spotters	20
2.	Journal	3- 5publishedarticlecompilatio nandanalysisrelatedtosynops is topic	20
3.	Viva 1	General subject related viva	30
4	Viva2	Synopsis presentation and viva on synopsis	30

1. REFERENCE BOOKS:-

1	Charak Samhita	Chakrapani commentary
2	Sushrut Samhita	Dalhana Commentary
3	Ashtanga Samgraha	Indu commentary
4	Ashtanga Hridaya	Arundutta and Hemadri commen
5	Vaisheshika Darshan	Prashastapada Bhasya
6	Nyaya Darshan	Vatsyayan Bhasya Patanjala
7	Yoga Darshan	Vyas Bhasya
8	Vedantsara	-
9	Sarvadarshan Samgraha	-
10	Bhartiya Darshan	Baldev Upadhayaya
11	Ayurved Darshanam	Acharya Rajkumar Jain

PARA-CLINICAL SUBJECT: ROGANIDANA AVUM VIKRITI VIGYANA

THEORY: 100 Hours

THEORY: 100marks

PRACTICAL: 100marks

PART A (50 MARKS)

Unit	Contents	Hours
1	Understanding of Samprapti of diseases in Charaka NidanaSthana in contemporary context	12
2	Clinical aspects of Dosha, Dhatu, Upadhatu, Mala, Agni,Ama,Srotas And Indriya	13
3	Understanding of the role of Trividha Avasthapaka in the vitiation of Dosha	5
4	Concept of Nanatmaja and Samanyaja Vikara	5
5	Clinical application of Avarana in diagnosis of various diseases	5
6	Clinical application of Shatkriyakala in diagnosis of diseases.	5
7	Clinical and applied aspects of concept of Upadrava and Arista	5

PART B (50MARKS)

Unit	Contents	Hours
1	Ayurvedic interpretation of various laboratory investigations to derive treatment principles.	15
2	Interpretation of various Rogi Bala and Roga Bala technique to plan Chikitsa Sutra	10
3	Clinical examination of Deha Bala, Roga Bala, Agnibala And Chetas Bala	12
4	Knowledge of current diagnostic tools like ECG, X-Ray, CT scan, MRI and USG	13

PRACTICAL HOURS DISTRIBUTION:

Unit	Contents	Hours
1	Duty in hospital OPD and IPD	50
2	Duty in pathology laboratory	50
3	Casetaking–25cases	40
4	Performance of pathology and biochemistry practical–10cases	40
5	Interpretation of ECG, EEG, X-ray, CT-Scan, MRI and USG	20

PRACTICAL: 100 MARKS DISTRIBUTION

No.	Particulars	Details	Marks distribution
1	Case record(25Cases)	15OPD case sheets&10 IPD case sheets	10
2	Long case	Detailed history taking of IPD case	20
3	Short case	History taking of OPD case	10
4	Laboratory Practicals	Performance of Biochemistry & pathology practical	20
5	Interpretation of ECG, EEG, X-ray, CT-Scan, MRI And USG	Radiological images	10
6	Laboratory experiment record	Logbook of laboratory experiment	10
7	Viva-voce	PartA-10 Marks	20
		PartB-10Marks	

REFERENCE BOOKS:

1. Madhav Nidan (Madhukosha Commentary)
 2. Relevant portions of Charak Samhita, Sushrut Samhita and Vagbhata
 3. Doshakaranatwa Mimamsa - Acharya P.V. Sharma
 4. Nadi pariksha - Vb Athavale
 5. Nadi Pariksha – - GP Upadhyay
 6. Rogi Pariksha vidhi - Acharya Priyavrata Sharma
 7. Nidan Panchak - Shivcharan Dhyani
 8. Vyadhivigyan I and II - Yadav Thrikamji
 9. Ayurvediya Roga Vargikaran - Vd. Ramanat Vd. Gurdip Singh
 10. Ayurvediya Nidan Evum Chikitsa Ke Siddhanta - Prof. Ram Harsh Singh
 11. Clinical methods in Ayurveda - K. R . S. Murthy
 12. Parameswarappa's Ayurvediya Vikriti Vigyan & Roga Vikriti Vigyan - Dr. P.S. Byadgi.
 13. Oxford Handbook of Clinical Examination and Practical Skills
 14. Symptoms & Signs in Clinical Medicine - Chamberlains
 15. Hutchison's Clinical Methods
 16. Bedside Clinics in Medicine Part- I & II - Kundu
 17. Practical Pathology - Dr. K. Uma Chaturvedi
 18. Medical Laboratory Technology - R. Sood
 19. Clinical Diagnosis and Management by Laboratory methods - Todd, Sanford and Davidson
-

SYLLABUS OF CLINICAL SUBJECTS

1. PRE-CLINICAL SUBJECT: PRASUTI EVAM STRIROGA

THEORY: 100marks

THEORY: 100marks

PRACTICAL: 100marks

PART A- 50 MARKS		
Unit	Content	Hours
1.	Concept of Tridosha, in relation to Prasuti and Stri Roga	3 Hours
2.	Concept of Dhatu, Upadhatu, in relation to Prasuti and Stri Roga	3 Hours
3.	Concept of Agni, in relation to Prasuti and StriRoga	3 Hours
4.	Concept of Pancha Mahabhuta in relation to Prasuti and Stri Roga	3 Hours
5.	Concept of Artava in relation to Prasuti and StriRoga	3 Hours
6.	Concept of Shukra.in relation to Prasuti and StriRoga	3 Hours
7.	Concept of Rasa, Guna, Veerya, Vipak of Dravya used in Prasuti and StriRoga	2 Hours
8.	Concept of Karma of Dravya used in Prasuti and StriRoga.	3Hours
9.	Action of commonly used plants and Rasa Aushadhi in Prasuti and StriRoga.	3 Hour
10.	Adverse drug reaction related to commonly used plants and Rasa Aushadhi in Prasuti and StriRoga.	3 Hours
11.	Concept of Pathya- Apathya in relation to Prasuti and Stri Roga.	3 Hours

12.	Concept of Garbhadhan	3 Hour
13.	Concept of Garbha.	2 Hours
14.	Concept of Vrana in relation to Prasuti and Stri Roga.	2 Hours
15.	Concept of Vranadushti In relation to Prasuti and StriRoga.	2 Hour
16.	Concept of special therapies of Ayurved used in Prasuti and Stri Roga.	3 Hours
17.	Concept of Ashtavidha Shastra Karma used in Prasuti and Stri Roga	3 Hours
18.	Concept of Yantra used in Prasuti and StriRoga	3 Hours
19.	Concept of shastra used in Prasuti and StriRoga	3 Hours

PART B- 50 MARKS

SR NO	CONTENT	HOURS
1.	Applied anatomy and physiology of genito-urinary system, abdomen,	1 Hour
2.	Applied anatomy and physiology of pelvis, pelvic floor, anterior abdominal wall,	1 Hour
3.	Applied anatomy and physiology of inguinal ligament, inguinal canal	1 Hour
4.	Applied anatomy and physiology of vulva, rectum and anal canal.	1 Hour
5.	Abnormal development, structure and function of female and male urogenital systems	2 Hours
6.	Development, structure and function of placenta,	1 Hour
7.	Development, structure and function of umbilical cord	1 Hour

8.	Development, structure and function of amniotic fluid.	1 Hour
9.	Physiological and neuro-endocrinal changes during puberty, adolescence	1 Hour
10.	Physiological and neuro-endocrinal changes during menstruation	1 Hour
11.	Introduction of hormones related with gynaecology and obstetrics.	2 Hours
12.	Ovulation	1 Hour
13.	Fertilisation	1 Hour
14.	Climacteric and menopause.	1 Hour
15.	Biophysical and biochemical changes in uterus and cervix during pregnancy and labour.	2 Hours
16.	Pre-natal counseling and examination	2 Hours
17. 18.	Natal Counseling and examination	2 hours
19.	Post natal counseling and examination. Pharmacological study of drugs used in gynaecology	2 Hours
20.	Pharmacological study of drugs used in obstetrics.	2 Hours
21.	Knowledge of diagnostic techniques used in gynaecology	2 Hours
22.	Knowledge of diagnostic techniques used in obstetrics	
23.	Basic Knowledge of pathological and biochemical investigation used in gynaecology	3 hours
24.	Basic Knowledge of pathological and biochemical investigation used in Obstetrics.	3 hours
25.	Ethics, law and Acts Related to gynaecology and obstetrics	2 Hours
26.	Laws of abortion and adoption.	2 Hours
27.	Knowledge of contraception and sterilization procedures	3 hours

28.	Pre-operative and post operative care in gynaecology	3 hours
29.	.Pre-operative and postoperative care in obstetrics.	3 hours

Practical Hours Distribution /Contents:

1. Hospital duties in OPD, IPD, labor room, OT and casualty
2. History taking and counseling - 25 cases.
3. Labor cases - observation/performing - 10 cases
4. Knowledge of instruments required in gynaecology and obstetric practices.
5. Ayurvedic diagnostic and therapeutic procedures.
6. Fluid therapy and blood transfusion.
7. Contraception and sterilizations.

Distribution of Marks: 100 Marks		
1	Case records of Patients in Detail (25Cases)	20 marks
2	Bedside clinical case taking	
	Long case	20 marks
	Short case	10 marks
3	Procedures	15 marks
4	Identification of instruments, X-ray etc & Spotting	15 marks
5	Viva-voce -	20Marks

Reference Books

1. Related matter from all the samhitas and their commentaries.
 2. Prasuti tantra evum stree roga by Prof Tewari P V
 3. Concepts of gynecology Dr Nirmala G Joshi.
 4. Prasuti Tantra Prof. M. Dwivedi
 5. Stree roga vigyan - Dr VNK Usha
 6. Navya prasuti Vigyan Dr Pooja Bharadwaja
 7. Text book of gynaecology - Berek and Novak.
 8. Text book of obstetrics- Williums
 9. Text book of obstetrics- D C Dutta
 10. Text book of gynaecology - D C Dutta
 11. Gabbe's normal and problem pregnancies.
 12. Human embryology by Saddler.
 13. Jeffcoat's principles of gynaecology
 14. Te linde's gynaecological surgery.
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SYLLABUS OF CLINICAL SUBJECTS

2. CLINICAL SUBJECT: KAYACHIKITSA

THEORY: 100 Hours

THEORY: 100 marks

PRACTICAL: 100marks

PARTA		
Unit	Contents	Hours
1	Understanding of fundamental concepts of Kayachikitsa like Vriddhi and Kshaya of Dosha, Dushya, Mala with Amshaamsha Kalpana. Srotodushti, Khavaigunya, Agni, Ama (Saama and Nirama Dosha, Dhatu & Mala). Aavarana, Rogamarga, Ashayapakarsha, Dosha Gati, Kriyakala. Aushadha Sevana Kala, Anupana, Pathya-Apathya and their scientific relevance during health and disease.	15
2.	Detailed knowledge of Rogi Roga Pariksha including detailed history taking and systemic examination of patient. Clinical implementation of Dwividha Pariksha, Trividha Pariksha, Chaturvidha Pariksha, Panchavidha Pariksha, Shadvidha Pariksha, Ashtavidha Pariksha, Dashvidha Pariksha Bhavas and Prakriyadi Dashvidha Pariksha	15
3	Principles of Kayachikitsa in disease management including Shodhana, Shamana and Naimittika Rasayana.	15
4	Introduction of the basic principles of Modern medicine, Homeopathy, Unani, Siddha, Tibetan Medicine, Yoga and Naturopathy and the irrelevance in light of the basic principles of Ayurvedic medicine.	5
PART B		
1	Chikitsa Siddhanta of Pranavaha, Annavaaha, Udakavaha, Rasadi Dhatuvaha, Malavaha & Manovaha Srotovikara.	10
2	Emergency medicine: Acute Severe Asthma, pulmonary oedema, myocardial infarction, cerebro-vascular accidents, water and electrolyte imbalance, haemorrhage, syncope, seizure, coma, hyperpyrexia, hypertensive encephalopathy.	10
3	Knowledge of conducting various medical procedures like infusions, tapping, lumbar puncture, Ryle's tube insertion, catheterization, tractions, water seal drainage, Cardio Pulmonary Resuscitation.	10

4	Basic knowledge of underlying principles of ECG, TMT, echocardiography, vascular doppler studies, EEG,EMG,X-Ray, USG, CT scan, MRI, PET and their interpretation.	10
5.	<p>Knowledge of common Ayurvedic formulations and preparations used in treatment:</p> <p>Churna- Triphala, Sitopaladi, Lavanbhaskara, Hingvashtaka, Avipattikara, Gangadhara, Shaddharana, Sudarshana, Panchasakara, Ajmodadi.</p> <p>Kashaya- Dashamula, Rasnasaptaka, Asanadi, Pathyadi, Phalatrikadi, Punarnavashtaka, Gojivhadi, Mahamanjishtadi, Drakshadi Kashaya.</p> <p>Asavas-Arista- Amritarishta, Kanakasava, Chitrakasava, Saraswatarishta, Ashwagandharishta, Chandanasava etc ,</p>	5
6.	<p>Vati- Sanjivani, Chandraprabha, Agnitundi, Chitrakadi, Khadiradi, Vyoshadi, Shankha Vati, Shiva Gutika.</p> <p>Guggula-Kalpana-Triphalaguggula, Kaishoraguggula, Trayodashangaguggula, Simhanadaguggula, Yogarajaguggula, Gokshuradi guggula, Kanchanaraguggula.</p> <p>Rasaushadhi- Tribhuvanakirti Rasa, Arogyavardhini Rasa, Shwasakuthara Rasa, Rasamanikya Rasa, Smritisagara Rasa, Lakshmivilasa Rasa, Sutshekhara Rasa, Pravala Panchamrita Parpati, Hemagarbhapottali Rasa.</p> <p>Taila- Mahanarayana Taila, Pindataila, Prasarinyadi Taila, Ksheerabala Taila, Brihat Saindhavadi Taila, Panchaguna Taila, Amritadi Taila, Marichyadi Taila, Mahamasha Taila.</p> <p>Ghrita- Mahatriphaladi Ghrita, Brahmi Ghrita, Panchtikta Guggulu Ghrita, Sukumara Ghrita, Dadimadya Ghrita, Kantakari Ghrita, Kalyanaka Ghrita.</p> <p>Lehya- Chyavanaprasha Avaleha, Kushmanda Avaleha, Ashwagandha Avaleha, Agastya Hareetaki Rasayana, Drakshavaleha, Vasavaleha, Amrita-Bhallataka Rasayana</p>	5

PRACTICALS

Content:-

Daily hospital duties in OPD, IPD and casualty

Bed-side case taking–25 patients

DISTRIBUTION OF PRACTICAL: 100 MARK

1	Caserecordsof25Patientsindetail	20 marks
2	Bedside clinical case taking-	30 marks
	Long case	20 marks
	Short case	10marks
3	Medical procedures/laboratory work	15marks
4	Instruments and spotting	15marks
5	Viva voce	20marks

REFERENCE BOOKS-

Charak Samhita	-Cakrapanidutta commentry
Sushrut Samhita	-with all available commentaries.
Ashtang Samgraha	-Indu commentary
Ashtang Hridaya	-Arundutta and Hemadri commentry
Cikitsadarsha	- Pandit Rajesvardutta Shastri
Kayachikitsa	- Ramaraksha Pathak
Rog Pariksha Vidhi	- Priyavrat Sharma
Panchakarma Vigyan	- Haridas Sridhar Kasture
Ayurved Nidan Chikitsa Siddhanta	- Prof. R.H.Singh.
Kayachikitsa Vol. I-IV.	- Prof. Ajay Kumar
Davidson's Principles and Practice of Medicine.	
API Text Book of Medicine.	
Harrison's Text Bok of Medicine.	
Cecil Text Book of Medicine.	
Relevant texts of concerned subjects.	

SYLLABUS OF CLINICAL SUBJECTS

3. CLINICAL SUBJECT: SHALYATANTRA-SAMANYA

THEORY: 100Hours

THEORY: 100marks

PRACTICAL: 100marks

PART A (50 MARKS)

Sr no	Content	hours
1	Etymology, Definition, Scope and Importance of Shalyatantra	1hour
2	Study of modern surgical clinical methodology	1hour
3	StudyofSushrutaSamhitaSutraSthanafrom1stto29thchapter	12 Hours
4	Scope and importance of shalyatantra	1hour
5	Applied anatomy, physiology and surgical pathology of common surgical Conditions including relevant Ayurvedic aspects	14hours
6	Applied aspect of Shatkriyakala in the pathogenesis of Surgical diseases	1hour
7	Applied aspect of Prakriti in understanding the causes and role of treatment in surgical diseases	1hour
8	Applied aspect of basic principles of Ayurveda in RogiPariksha. Introduction of clinical and diagnostic methods in ShalyaTantra	2hours
9	Concept and applied aspect of Sadhya-Asadhya, Arishtalakshana	1hour
10	MarmaSharira	2hours
11	Concept of shock	2hours
12	Basics of fluid, electrolyte, acid-base balance and Nutrition	2hours
13	Antibiotics,Analgesics,Anti-inflammatory and Emergency drugs in surgical practice	3hours
14	Surgical emergency conditions and its management	4hours
15	Sushruta's conceptof Rakta, Raktasrava, Concept of Raktastambhana, Blood transfusion	2hours
16	Medico-legal aspects in Surgery, Knowledge of documentation and recordkeeping	1hour

PART B (50 Marks)

Sr no	Content	hours
1	Knowledge of ancient and recent Yantra and Shastra-surgical instruments and their application in Surgical practice	4 hours
2	Asepsis and Antisepsis. Sterilisation- methods and types	3 hours
3	Surgical infections, Handling and care of HIV and Hepatitis positive patients.	4 hours
4	Sangyahan / Anaesthesiology	5 hours
5	Trividhakarma-Purva, Pradhan and Paschatkarma	6 hours
6	Ashtavidha Shastrakarmas	6 hours
7	Bandhanakarma-Recent advances	3 hours
8	Ksharakarma-Introduction, types, method of various preparations- Kshara, ksharavarti, ksharapichu and applications	3 hours
9	KsharaSutra-Method of preparation, Standardization and applications	3 hours
10	Agnikarma-Introduction, types and applications	4 hours
11	Raktamokshana	3 hours
12	Application of Panchakarma therapy in surgical practice	3 hours
13	Scope of Pathya-Apathya in the management of surgical diseases	1 hour
14	Diagnostic methods	2 hours

PRACTICAL:

Content:-

1. Hospital duties in OPD, IPD, OT and casualty
2. Case record-25 cases
3. Surgical cases -observation/performing-10 cases
4. Knowledge of instruments required in surgical practices.
5. Ayurvedic diagnostic and therapeutic procedures.
6. Fluid therapy and blood transfusion.
7. Contraception and sterilizations.
8. Pre-operative, operative and postoperative procedures.

DISTRIBUTION OF MARKS (PRACTICAL): 100 MARKS

1	<i>1. Caserecordsof25Patients in detail</i>	20 marks
2	<i>Bedside clinical case taking</i>	30 marks
	Long case	20 marks
	Short case	10 marks
3	<i>Identification of instruments, X-ray etc</i>	15 marks
4	<i>Medical procedures</i>	15 marks
5	<i>Viva voce</i>	20 marks

REFERENCE BOOKS:-

1. Sushruta Samhita
2. Ashtanga Sangraha
3. Ashtanga Hridaya
4. Charaka Samhita
5. The Surgical instruments of the Hindus - Girindranath Mukhopadhyaya
6. Shalya Tantra Samuchchaya - Pandit Ramadesh Sharma
7. Shalya Vigyan (Part 1-2) - Dr. Surendra Kumar Sharma
8. Shalya Samanvaya (Part 1-2) - Vd. Anantaram Sharma
9. Shalya Pradeepika - Dr. Mukund Swaroop Verma
10. Sushruti - Dr. Ram Nath Dwivedi
11. Clinical Shalya Vigyan - Dr. Akhilanand Sharma
12. Bhagna Chikitsa - Dr. Prabhakar Janardhan Deshpande
13. Kshara sutra management in anorectal ailments - Dr. S.K. Sharma, Dr. K.R.Sharma and Dr. Kulwant Singh.
14. Anorectal diseases in Ayurveda - Dr. Sizoria and Dr. Praveen Kumar Chowdary.
15. Adhunka Shalya Chikitsa Siddanta - Dr. Katil Narshingham Udupa
16. Agnikarma Technology Innovation - Dr. P.D. Gupta
17. Shalya Tantra Ke Siddhant - Dr. K.K.Takral
18. Recent advances in the management of Arshas /Haemorrhoids - Dr. P. Hemantha Kumar

-
1. Bailey and Love's Short Practice of Surgery - Norman.S. Williams, Charles.V. Mann and R.C.G. Russell

1. Fractures and Joint Injuries - Watson-Jones
 2. Text books of Operative Surgery - Farquharsons'
 3. Principles of Surgery - Schwartz
 4. Emergency Surgery -Hamilton Bailey's
 5. Surgical pathology - Willing Worth
-
1. Clinical methods in surgery - S. Das
 2. Textbook of Operative Surgery - S. Das
 3. Shalya Vigyan (Sachitra) - Anantram Sharma
 4. Anushastra Karma - Dr. D.N. Pande
 5. Concept of Vrana is Ayurveda - Dr. Lakshman Singh
 6. Significance for Poorva Karma in Surgical Patient - Dr. Lakshman Singh
 7. Sangyahan Prakash - Dr. D.N. Pande
 8. A concise Text Book of Surgery - S. Das
 9. A manual on Clinical Surgery - S. Das
 10. A System of Surgical Diagnosis - T.N. Patel
 11. A Practical Guide to Operative Surgery - S. Das
 12. Drugs and Equipment for Anaesthesia - Arun kumar
 13. Manual of Surgical Instruments - M.M. Kapur
 14. Ward Procedures - Patel Mansukh. B
 15. Operative Surgery - Rob and smith
 16. Manipal Manual of Surgery - Dr. Rajgopal Shenoy

1. Arsha Evum Bhagander Mein sutra Avacharan- Vd. Kanak Prasad Vyas
2. Recent advances in Kshara Sutra - Dr. M. Bhaskar Rao
3. Leech application in Ayurveda - Dr. M. Bhaskar Rao
4. Kshara Sutra - Dr. S.N.Pathak
5. Shalya Shalakya Tantra - Vd. S.G. Joshi
6. Surgical ethics of Ayurveda - Dr. D.N. Pande
7. Text book of Surgery - Sabistan

1. Primary Anaesthesia - Maurice King
2. Synopsis of Anaesthesia - Lee
3. Clinical Anatomy/ Surgical Anatomy - John E.Skandalakis

4. Surgical Instruments of the Hindus - Girindharnath Mukopadyay
 5. Outline of Orthopedics - John Crawford Adams and David Hamblen. L
 6. Outline of Fracture - John Crawford Adams
 7. Recent trends in the management of
Bhagandara / Fistula-in-ano - Dr. P. Hemantha Kumar
 8. Principles and Practice of Agnikarma - Dr. Anand Kumar and Dr. Kanchan Shekok
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