CENTRAL COUNCIL OF INDIAN MEDICINE

SIDDHA MARUTHUVA PERARINGNAR (M.D. (SIDDHA) COURSE

SYLLABUS FOR NOI NAADAL (PATHOLOGY AND DIAGNOSTIC METHODS) SPECIALITY

[UNDER THE INDIAN MEDICINE CENTRAL COUNCIL (POST GRADUATE SIDDHA EDUCATION) REGULATIONS, 2016.]

GOAL:

- The Goal of M.D (Siddha) Noinaadal Branch Post Graduate Programme shall be to produce competent specialists and experts in Siddha diagnostic methods and diseases through physical and laboratory diagnosis.
- And, this course aims at imparting knowledge to the PG Scholars about Research Methodology for engaging them in quality research.

OBJECTIVES:

At the end of the M.D (Siddha) course in Noinaadal, the student should be able to,

- Recognize the ways and means of diagnosing a disease through exclusive Siddha diagnostic methods.
- To understand the Siddha and Modern classification of diseases from a common standpoint with appropriate correlation.
- To acquire a sound knowledge and skill in the Ennvagai Thervu diagnostic methods.
- To be trained as experts in the field of Naadi (Pulse) diagnosis, Neerkuri and Neikkuri examination, Manikkadainool examination, Marana Kurikunangal (Grave signs) etc.
- To have detailed study of the general, geriatric, paediatric, gynaecological and surgical diseases with their physical, laboratory and imaging diagnostic methods.
### FIRST YEAR (Preliminary Examination)

<table>
<thead>
<tr>
<th>S.NO</th>
<th>SUBJECT</th>
<th>THEORY</th>
<th>PRACTICAL/CLINICAL</th>
<th>VIVA</th>
<th>TOTAL MARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PAPER –I Research Methodology and Bio-Medical Statistics</td>
<td>100</td>
<td>Minor Project - 100 (Submission of report -60 marks, Publication /Presentation – 20 marks, Oral- 20 Marks)</td>
<td>--</td>
<td>200</td>
</tr>
<tr>
<td>2.</td>
<td>PAPER–II Siddha Diagnostic methods and application of basic principles</td>
<td>100</td>
<td>100 (Clinical 70+Oral-30)</td>
<td>50</td>
<td>250</td>
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### SECOND YEAR

*Essential*: Obtain CME credit points through Seminars /Workshops /Conferences (National/ International)

*Desirable*: Publication/ Visits or internship at Industry / Lab / Research institute / other AYUSH Institutions/Journal club/ Teaching Under Graduate Students

### THIRD YEAR (Final Examination)

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<thead>
<tr>
<th>S.NO</th>
<th>SUBJECT</th>
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<th>PRACTICAL/CLINICAL</th>
<th>VIVA</th>
<th>TOTAL MARKS</th>
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<tbody>
<tr>
<td>1.</td>
<td>PAPER –I Siddha Maruthuva Noinaadal and Clinical Applications -I</td>
<td>100</td>
<td>100 (Clinical 70+Oral 30)</td>
<td>50</td>
<td>250</td>
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<tr>
<td>2.</td>
<td>PAPER –II Siddha Maruthuva Noinaadal and Clinical Applications-II</td>
<td>100</td>
<td>100 (Clinical 70+Oral 30)</td>
<td>50</td>
<td>250</td>
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<td>3.</td>
<td>PAPER –III Essentials In Pathology Including Clinical Pathology</td>
<td>100</td>
<td>100 (Clinical 70+Oral 30)</td>
<td>50</td>
<td>250</td>
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<td>4.</td>
<td>PAPER –IV Recent Advances in Diagnostic Methods Radiology</td>
<td>100</td>
<td>100 (Practical 70+Oral 30)</td>
<td>50</td>
<td>250</td>
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</table>

**Dissertation**: Maximum marks will be 100 and Minimum marks for passing will be fifty percent.
FIRST YEAR

PAPER- I RESEARCH METHODOLOGY AND BIO-MEDICAL STATISTICS

CLINICAL RESEARCH METHODS UNIT-I

- Measures of disease frequency
- Measures of association/impact in clinical research
- Measurement errors in clinical research
- Validity in clinical research
- Bias in clinical research
- Descriptive bio-statistics
- Inferential bio-statistics
- Formulating research question
- Descriptive studies
- Analytical studies
- Pre-clinical studies
- Experimental studies
- Sampling and sample size estimation
- Survival analysis

CLINICAL RESEARCH METHODS UNIT-II

- Bio-medical literature search / Organization of Literature search (Zotero etc)
- Developing data collection instruments/Case Record Form (CRF)
- Developing analysis plan
- Use of statistical software for data analysis
- Writing protocol: Principles and Guidelines
- Ethics in clinical research (Siddha, International/National)
- Scientific writing/ Writing the Dissertation (Including University Guidelines)
- Scientific presentation (oral/visual/poster)
- Case report writing / presentation
- Journal critique
- Writing research grants
- Comparative study of traditional medical systems (specifically Chinese, Ayurveda, Homeopathy, Unani)
- Mentorship
- Pedagogic methods

CLINICAL RESEARCH METHODS UNIT-III

- Introduction to National health programmes/health system including AYUSH
- Indian health/medical research systems/bodies including AYUSH ICMR, CCRAS, CCRS, Clinical Trials Registry of India etc
- Orientation to National clinical research guidelines/regulatory bodies CDSCO/DCGI/NABH/QCI Indian GCP for ASU
- Drug standardization as per Pharmacopoeial Laboratory for Indian Medicine (PLIM)
- International guidelines ICH-GCP; WHO guidelines for traditional medicine; WHO/OECD guidelines for animal studies
CLINICAL RESEARCH METHODS UNIT-IV (MINOR PROJECT)

- Cross-sectional study (Hospital-based)
- Patients; Care-takers; Physicians
- Cross-sectional study (Community-based)
- Local traditional health traditions, including traditional bone-setting
- Community (including tribal populations)
- Studies using qualitative research methods
- Clinical epidemiological studies (Hospital-based)
- Secondary data analysis of clinical data with report
- Case report/Case-series writing
- Systematic review
- Literary research
- Comparative study of traditional medical systems
- Report on visit to industry / entrepreneurship ideas

Publication of any of the above work will get 20 marks

References:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the book, Language, Publishers &amp; Year of publication</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Biostatistics – Principles and Practice, (English), Elsevier, 2017</td>
<td>B Antonisamy, Solomon Christopher, Prasanna Samuel</td>
</tr>
</tbody>
</table>

PAPER- II SIDDHA DIAGNOSTIC METHODS AND APPLICATION OF BASIC PRINCIPLES

APPLICATIONS OF BASIC PRINCIPLES:

- Importance of Noinaadal
- Pancha bootha theory
- Pathological view of 96 principles
- Ayulkalanirmayam (life expectancy)
- Mani,Manthira,avizhtham
- Unavae noikaranam concepts of Thiruvalluvar
- Siddha concepts of embryogenesis
- Mukkutraiyal (Three humoral theory)
- Udalthathukkal (Somatic components)
- Thodakurigal (signs and symptoms of fatal conditions)
- Diseases due to suppression of 14 vegangal(natural urges)
- Udalvanmai and Udal thee
- Ideal period for medication
- Thoothullakkakanam
- Noimudharkanam (Primary causes of diseases)
- Uyir anal
SIDDHA DIAGNOSTIC METHODS:

1. Ennvagai Thervu
   • Naa (Tongue)
   • Niram (Colour/complexion)
   • Mozhi (Speech/Voice)
   • Vizhi (Eyes)
   • Sparisam (Tactile perception)
   • Malam (Faeces)
   • Moothiram (urine)
   • Naadi (Pulse examination) - different schools of thought

2. Saram (Principles of Pranan)

3. Dhasanaadikal & Dhasavayukkal
   • Pathways -Applications of Naadi principles—Concepts of Sadhaganaadi, boothanaadi-sathiym, asaathiyam and marananaadigal
   • Guru naadi -Development, functions and abnormal manifestations Guru nadi-Grave signs

4. ManikkadaiNool -(AgathiyarSoodamanikairunool)

5. Panchapatchi Sasthiram
   • Definition
   • PanchaPatchiPayanpaadu
   • Formation of PanchaPatchi
   • Identification of Patchi through samam
   • Poorvapatchi, Boothapatchi
   • Atcharapatchi, Amarapatchi,
   • Functional variations of Panchapatchi in accordance with time
   • Identification ofPatchi in Individuals
   • Natchthirapatchi, Amarapatchi
   • Valarpirai/Theipiraipatchi, Chakara,amarapatchi,Natchthirapatchi,patchimo oligaigal,
   Noinilayil Panchapatchi.

6. Jodhidam (Medical Astrology)
   • Concept of Jodhidam in Diagnosis
   • NatchathiraUtcham, Pagai, Neetcham
   • Lagnam  Kanippu with noilagnam
   • LagnaPalan, Position ofNatchathiram
   • Ayul Nilai , AthmaNilai
   • NatchathiraThinai and Buthi, DhasabuthiPalangal
   • Nimitham & Prasnnajothidam

7. AmirdhaNilai

8. Angalatchanam and its diagnostic view

9. Surakkol
## References:

<table>
<thead>
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<tbody>
<tr>
<td>3.</td>
<td>Theriyar neerkuri &amp; neikuri, Thamarai Noolagam</td>
<td>Dr. Shanmugavelu H.P.I.M.,</td>
</tr>
<tr>
<td>4.</td>
<td>Theriyaryamagam, Thamarai Noolagam</td>
<td>Dr. Shanmugavelu H.P.I.M.,</td>
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<td>5.</td>
<td>Thirumoolar naadinool, Thamarai Noolagam</td>
<td>Dr. Shanmugavelu H.P.I.M.,</td>
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<tr>
<td>6.</td>
<td>Agasthiyar Gunavaagada Naadi, Thamarai Noolagam</td>
<td>Dr. Shanmugavelu H.P.I.M.,</td>
</tr>
<tr>
<td>7.</td>
<td>Pathinen siddhar naadi nool, Thamarai Noolagam</td>
<td>Dr. Shanmugavelu H.P.I.M.,</td>
</tr>
<tr>
<td>8.</td>
<td>Theriyar Maruthuva Bharatham, Thamarai Noolagam</td>
<td>Dr. Shanmugavelu H.P.I.M.,</td>
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<tr>
<td>9.</td>
<td>Sigicharathina Deepam</td>
<td>Dr. Shanmugavelu H.P.I.M.,</td>
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<td>10.</td>
<td>Yugi vaithiya chindhamani, Thamarai Noolagam</td>
<td>Dr. Shanmugavelu H.P.I.M.,</td>
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<tr>
<td>11.</td>
<td>Siddha maruthuvaanga chirukkam, (Tamil), Department of Indian Medicine and Homoeopathy - Chennai.</td>
<td>Dr. Ka. Su.Uthamarayan H.P.I.M.,</td>
</tr>
<tr>
<td>13.</td>
<td>Kannusamiyam - Vaithiya saarasaangeeragam</td>
<td>Kannusamiyam - Rathina naayakkar &amp; sons</td>
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<td>14.</td>
<td>Pulipaani jothidam, Thamarai Noolagam</td>
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<td>Panchapatchi Saasthiram</td>
<td>Kannusamiyam - Rathina naayakkar &amp; sons</td>
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<td>16.</td>
<td>Pathinen siddhargal panjapatchi saasthiram, Pulipaani - Sunthara varathasari (Saraswathi mahal - Tanjore)</td>
<td>Kannusamiyam - Rathina naayakkar &amp; sons</td>
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<td>17.</td>
<td>Saranool saasthiram</td>
<td>Kannusamiyam - Rathina naayakkar &amp; sons</td>
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<td>18.</td>
<td>Dhasanaadigal, Varmaniyan foundation, Kombavilai, K.K district</td>
<td>Dr. Arjunan M.A., Ph.D., M.Phill</td>
</tr>
<tr>
<td>19.</td>
<td>Secrets of pulse</td>
<td>Dr. Vasanth Dathatracy</td>
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<td>20.</td>
<td>Introduction to Siddha Medicine</td>
<td>Dr. Thirunarayanan</td>
</tr>
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<td>21.</td>
<td>Gurunaadi Saasthiram</td>
<td>Kannusamiyam - Rathina naayakkar &amp; sons</td>
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<tr>
<td>22.</td>
<td>Theriyar segarappa, Central Research Instituite (CRI)</td>
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</table>
THIRD YEAR

PAPER- I SIDDHA MARUTHUVA NOINAADAL AND CLINICAL APPLICATIONS - I

Verupeyar, Noivarumvali, Murkurigal, Vagaigal, kurigunangal, Pothukurigunangal, Mukkutraverupadu, Naadinadai, Theerumtheeranilaigal and Maruthuvanadai for the following diseases:


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<td>Yugi vaithiya chindhamani, Thamarai Noolagam</td>
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<tr>
<td>3.</td>
<td>Mannuruiyam (Tamil Maruthuvanool), Senthamil pathipagam, Nagercoil.</td>
<td>Ramasubhramaniya Naavalars,</td>
</tr>
<tr>
<td>4.</td>
<td>Pararasa Seharam, Thamarai Noolagam</td>
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<td>5.</td>
<td>Theraiyar vaahadam, Thamarai Noolagam</td>
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</table>
PAPER – II SIDDHA MARUTHUVA NOINAADAL AND CLINICAL APPLICATIONS –II

Verupeyar, Noivarumvali, Murkurigal, Vagaigal, Kurigunangal, Pothukurigunangal, Mukkutriverupadu, Naadinadai, Theerumtheeranilaigal and Maruthuvanadai for the following diseases:


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<tr>
<td>2.</td>
<td>Sirappu Maruthuvam, (Tamil), Department of Indian Medicine and Homeopathy - Chennai.</td>
<td>Dr. R. Thiyagarajan</td>
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<td>3.</td>
<td>Mahalir Maruthuvam(Tamil), Department of Indian Medicine and Homeopathy - Chennai.</td>
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<td>Sool Maruthuvam(Tamil), Department of Indian Medicine and Homeopathy - Chennai.</td>
<td>Dr. P.M. Venugopal</td>
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<td>5.</td>
<td>Kuzhanthai Maruthuvam</td>
<td>Dr. K.S. Murugesu muthaliyar</td>
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<td>6.</td>
<td>Maathar Maruthuvam</td>
<td>Dr. Mohanraj, Mungirai college</td>
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<td>7.</td>
<td>Theriyar venba</td>
<td>Rathina naayakkar &amp; sons</td>
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<td>Arivayar Chinthamani</td>
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<td>11.</td>
<td>Text book of Surgery</td>
<td>S. Das</td>
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<td>13.</td>
<td>Diseases of eye</td>
<td>Parson's</td>
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<td>15.</td>
<td>Practice of dermatology</td>
<td>P.N. Behl's</td>
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<td>16.</td>
<td>Illustrated text book of dermatology</td>
<td>J.S. Pasricha</td>
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<td>17.</td>
<td>Text book of gynaecology</td>
<td>Shaw</td>
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<td>18.</td>
<td>Text book of gynaecology &amp; obstetrics</td>
<td>Shula Balakrishnan</td>
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<td>20.</td>
<td>Text book of gynaecology</td>
<td>Muthaliyar</td>
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</tbody>
</table>
GENERAL PATHOLOGY:

1. Cellular adaptation cell injury and cell death
   Mechanism, morphology and examples of cell injury, necrosis and apoptosis. Subcellular and cellular responses and adaptation to injury intracellular accumulations, pathological calcification and cell aging.

2. Acute and chronic inflammation
   Vascular and cellular events in acute inflammation, chemical mediators, outcome and morphological patterns of acute inflammation. Chronic inflammation with special reference to granulomatous inflammation. Systemic effects and effects of deranged inflammation

3. Tissue renewal and repair: Regeneration healing and fibrosis.
   Control of normal cell proliferation and tissue growth, mechanism of tissue regeneration, repair by healing and fibrosis. Extracellular matrix and cell matrix interactions.

4. Hemodynamic disorders, thrombo embolic disease and shock.
   Oedema, hyperaemia, congestion and haemorrhage. Normal Haemostasis, thrombosis, DIC, embolism, infarction and shock.

5. Genetic Disorders

6. Neoplasia
   Definition, nomenclature and biology of tumour growth. Molecular basis of cancer with special reference to carcinogenic agents and molecular basis of multistep carcinogenesis
   Epidemiology and clinical features of tumours. Metastasis, Grading, staging and laboratory diagnosis of cancer.

7. Infectious Diseases
   General principles of microbial pathogenesis, bacterial, fungal, parasitic and viral infections.

8. Environmental and nutritional pathology
   Common environmental and occupational exposures leading on to diseases. Nutritional deficiencies and obesity related disorders.

9. Disease of Infancy and Childhood
   Congenital anomalies, birth injuries, Diseases of neonates, Inborn errors of metabolism, Tumour and tumour like lesions of infancy and childhood.

Systemic Pathology

1. Blood vessels, lymphatic and veins
   Normal morphology, congenital anomalies, atherosclerosis, hypertensive vascular disease.
   Inflammatory and neoplastic diseases of all the vessels.

2. Heart
   Normal morphology, its blood supply and effect of aging on heart. Ischemic, hypertensive, valvular, congenital heart diseases and cardiomegaly Pericardial diseases. Tumours of the heart.

3. Lungs
4. **Head and Neck**  
Oral cavity: - inflammatory disease and tumours diseases of teeth and supporting structures.  

5. **Gastro Intestinal Tract**  
Congenital anomalies, infections inflammatory and vascular disorders and tumours of oesophagus, stomach, small and large intestines, appendix and anal canal. Diseases of the peritoneum.  
   i. **Liver**  
   Normal morphology with general features of hepatic disease including LFTs. Infectious, autoimmune drug induced, metabolic and circulatory disorders of liver. Hepatic diseases associated with pregnancy, neonates. Nodules and tumours of liver.
   ii. **Biliary tract**  
   Congenital anomalies, injuries, Gallstones, cholecystitis and tumours of gallbladderand extra hepatic bile ducts.
   iii. **Pancreas**  
   Congenital anomalies, pancreatitis and neoplasms of pancreas.

6. **Kidney**  
Clinical manifestations of renal diseases, congenital anomalies diseases affecting glomeruli, tubules, interstitium and blood vessels. Cystic diseases of kidney. Tumours of kidney

7. **Male genital system.**  
Congenital anomalies, inflammation and tumours of ureter, urethra, penis, testis and epididymis. Inflammation, enlargement and tumours of prostate.

8. **Female genital tract**  
Congenital anomalies, inflammation and tumours of vulva, vagina, cervix, uterus, fallopian tubes and ovaries. Gestational and placental disorders.

9. **Breast**  
Inflammations, benign epithelial lesions and tumours of the breast. Diseases of male breast.

10. **The Endocrine System**  
Normal hormonal levels and functions of all the endocrine glands. Hypo and hyperactivity of glands of endocrine system i.e. pituitary, thyroid, parathyroid, pancreas, adrenals and pineal gland. Autoimmune diseases, inflammations and tumours affecting these glands.

11. **Skin**  
Disorders of pigmentation and melanocytes inflammatory, vesiculobullous and infectious disease tumours of the epidermis, dermis and skin appendage.

12. **Musculoskeletal system**  
Disorders of bone growth and development, Genetic and acquired abnormalities in bone cells, matrix and structure, Metabolic and endocrine bone diseases. Features necrosis and infections of bones, Tumours and tumour like lesions of bones and soft tissue, Bursitis, Arthritis.

13. **Peripheral nerves and skeletal muscles**  
General reactions of motor units. Inflammatory, infectious, hereditary, metabolic and traumatic neuropathies atrophy, dystrophy, myopathies of the skeletal muscles. Diseases of neuromuscular junction tumours of peripheral nerves and skeletal muscle bundles

14. **Central Nervous System**  
Degenerative, metabolic, toxic, demyelinating, infectious, cerebro vascular malformations and traumatic injuries of skeletal muscle bundles.
15. Tumours
16. Eye
   Infections, inflammatory, congenital diseases and neoplasm of orbit, eyelid, conjunctiva sclera, cornea, retina and optic nerves

17. Cytopathology
   General Cytology
   Origin and principles with stress on basic structure of a mammalian cell. Recognition and classification of different cell types. Fundamental concepts of neoplasia – Benign & malignant.
   i. Cytopathology of Female Genital Tract
      Normal FGT Intraepithelial lesions and squamous carcinoma of the uterine cervix adeno carcinoma and related lesions of the uterine cervix. Proliferative disease and carcinoma of the endometrium.
   ii. Breast cytology
      Cytological diagnosis of all breast lesions on FNA.
   iii. Cytopathology of thyroid, lymph nodes, neck masses.
      Aspiration cytology of all common lesions.
   iv. Cytopathology of all effusions and fluids in the absence as well as presence of cancer.
   v. Cytopathology of Skin, Bone and Soft tissue
      Cytology of common lesions
   vi. Cytopathology of Liver, Spleen, Pancreas, Retro peritoneum, Abdominal lumps
      Cytology of neoplastic and non-neoplastic lesions
   vii. Cytopathology of Testis and Prostate.

18. Haematology

19. Clinical Correlation
   Signs and Symptoms (General and Systemic examination) with various haematological disorders.
   Immunopathology
   Agglutination Reactions- Principle, Techniques & practical Applications
   • All tests based on ELISA – Principle, Techniques & practical Applications
   • Protein electrophoresis – Principle, Technique & practical applications
   • Immunoelectrophoresis
   • Detailed knowledge of ANA & ANCA profile

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<tr>
<td>1.</td>
<td>Text book of pathology</td>
<td>Harsh Mohan’s</td>
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<td>Practical pathology</td>
<td>Harsh Mohan’s</td>
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<tr>
<td>3.</td>
<td>Clinical pathology</td>
<td>Harsh Mohan’s</td>
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<td>Robinson’s</td>
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<td>Bold’s</td>
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<td>6.</td>
<td>Text book of Pathology</td>
<td>Anderson’s</td>
</tr>
<tr>
<td>7.</td>
<td>Review in Pathology</td>
<td>Nitin Chawla, Sandip Kudesia</td>
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</tbody>
</table>
RECENT ADVANCES IN DIAGNOSTIC METHODS INCLUDING RADIOLOGY

Clinical examinations: Chest examination, abdominal examination, rectal examination, Cranial nerves examinations etc.

RADIOLOGICAL DIAGNOSIS:

- Introduction to radiology
- Physics of radiology
- Radiation physics and medical physics
- Radio diagnosis
- Imaging technique
- Computed tomography
- Magnetic Resonance and imaging
- Ultrasound Imaging

LABORATORY DIAGNOSIS:

- Haematology
- TC, DC, ESR, Hb, Total RBC, Blood group, BT, CT, PCV, Platelet count, peripheral smear,
- Smear for M.P, M.F.
- LFT, RFT
- Lipid profile
- Complete urine examination
- Albumin, Sugar, Deposits, Bile salts, Bile pigments, Acetone
- Stools examination – Physical and microscopic examination
- Vaginal smear
- Sputum Analysis
- Semen examination – Routine, Fructose level

Interpretation of a Haemogram:

- Preparation & examination of blood with relevant special stains
- Reticulocyte count preparation & interpretation of smear for reticulocyte count

INSTRUMENTAL DIAGNOSIS:

- ECG, EEG
- Optical Fundoscopy
- Doppler –Venus And Arterial
- Arthroscopy
- Pulmonary Function Test (Plethysmography)
- Echo Cardiogram
- Coronary Angiogram
- Radio Nucliod Scanning
- Intravenous Neurogram
- Cystoscopy
- Colonoscopy
- Bronchoscopy
- Upper G.I Endoscopy
- Endoscopic Retrograde colongiopancreatography
- Eletroretinogram
PRACTICALS:
CLINICAL PATHOLOGY:
- Bleeding time, Cloting time,
- TC,DC,ESR
- Estimation of WBC count
- Haemoglobin level
- PCV,MCV,MCHC
- Estimation of Platelet count
- Estimation of Reticulocyte count
- Peripheral smear
- Liver function test
- Renal function test
- Pulmonary function test
- Complete urine examination with reference to its physical, chemical and special tests.
- Semen examination – Physical, chemical (pH, Liquefaaction time) and microscopic examination.
- Stool examination – Physical and microscopic examination
- Vaginal Smear study
- Radiology (USG,CT,MRI)

References:

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<tr>
<th>S.No</th>
<th>Name of Books, Language, Publishers &amp; Year of Publication</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Clinical Methods</td>
<td>Hutchinson's</td>
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<td>2.</td>
<td>Clinical Examination</td>
<td>Macleod's</td>
</tr>
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<td>3.</td>
<td>Physical examination and health assessment</td>
<td>Jarvis</td>
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<td>4.</td>
<td>Text book of radiology</td>
<td>David Sutton</td>
</tr>
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<td>5.</td>
<td>Clinical Pathology</td>
<td>Harsh Mohan’s</td>
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<td>6.</td>
<td>Practical Pathology</td>
<td>Harsh Mohan’s</td>
</tr>
<tr>
<td>7.</td>
<td>Manual of Clinical Pathology</td>
<td>CMC vellore</td>
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</tbody>
</table>

DISSERTATION

Kindly refer the regulation 11 of IMCC (Post-Graduate Siddha Education) regulations, 2016.