

CENTRAL COUNCIL OF INDIAN MEDICINE

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

SYLLABUS FOR KUZHANTHAI MARUTHUVAM (PAEDIATRICS) SPECIALITY

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

GOAL:

The goal of teaching of Kuzhantthai Maruthuvam to Post Graduate student is to impart knowledge of embryological development of child, growth, diseases affecting children in different age group, Siddha diagnosis and treatment procedures, external therapies, Paediatric drugs and formulations, preventive measures of the child, National programmes for children and emergency management procedures, Kayakalpa and good nutritional diets of Siddha medicine, scope of Social Pediatrics and counseling

OBJECTIVES:

At the end of the course, the student should be able to demonstrate his knowledge and understanding on the following.

- Embryology & development of fetus and pathogenesis of diseases in children
- Growth and Developmental milestone of a child
- Stages of childhood and their diseases
- Diseases affecting the paediatric age group Definition - Classifications - Descriptions
- Diagnostic methods of paediatrics diseases according to Siddha Medicine
- Paediatric diseases and diseases due to maternal causes
- Dosage of paediatric medicines - duration of medications - Stamina of the body - Child care and good parenting.
- Food suitable for children - special food items - Food related with rejuvenation
- Immunization methods
- Paediatric emergency care and medications
- National programmes for Children
- Recent advances in Modern Paediatric approach.

FRST YEAR (Preliminary Examination)					
S.NO	SUBJECT	THEORY	PRACTICAL/CLINICAL	VIVA	TOTAL MARKS
1.	PAPER-I Research Methodology and Bio - Medical Statistics	100	Minor Project - 100 (Submission of report - 60 marks, Publication/Presentation- 20 marks, Oral-20 Marks)	--	200
2.	PAPER-II Basics and applied aspects of Kuzhandhai Maruthuvam	100	100 (Clinical 70+Oral-30)	50	250
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)					
S.NO	SUBJECT	THEORY	PRACTICAL/CLINICAL	VIVA	TOTAL MARKS
1.	PAPER -I Paediatric Purview of Social and Preventive Medicine	100	100 (Clinical 70+Oral 30)	50	250
2.	PAPER-II Kuzhandhai Maruthuvam- Pothu (Paediatrics- General)	100	100 (Clinical 70+Oral 30)	50	250
3.	PAPER-III Kuzhandhai Maruthuvam-Sirappu (Paediatrics - Specialised Treatment)	100	100 (Clinical 70+Oral 30)	50	250
4.	PAPER-IV Essentials in Paediatrics	100	100 (Clinical 70+Oral 30)	50	250

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 (Zoteroetc)
- 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:

S.No.	Name of the book, Language, Publishers & Year of publication	Author
1	Health research methodology: A Guide for Training in Research Methods, (English), Second Edition, World Health Organization, Manila, 2001	World Health Organization
2	General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine, (English), First Edition, World Health Organization, 2000	World Health Organization
3	Designing clinical research. (English), Third Edition, Philadelphia: Lippincott Williams and Wilkins; 2013	Hulley SB, Cummings SR, Browner SR, Grady D, Newman TB
4	Biostatistics – Principles and Practice, (English), Elsevier, 2017	B Antonisamy, Solomon Christopher, Prasanna Samuel

PAPER II – BASICS AND APPLIED ASPECTS OF KUZHANDHAIMARUTHUVAM

- Concepts of 96 Thathuvas- five premordial elements (IYMPOOTHAM) – five sense organs(Iyum Pori)- functions of the sense organs 5 (Iympulam)- motor organs5- (kanmenthiriyam)- functions of the motor organs- 5 (Gnanenthiriyam)- intellectual faculties 4. (karanam)- intellect-1 (arivu)vital channels-10 (dhasaNaadi)- vital force-10 (thasaVaayu)-visceral Caviites-5 (aasayam)- systems or sheath- 5 (kosam)- nerve Plexus-6 (aatharasm-6)-vital regions-3(mandalam)- Mental Bindings-3 (malam)-life humours-3 (thosham)-physical bindings-3(Aedanai)- Qualities 3 (gunam)-acts-2 (vinai)-passions-8 (raagam)-state of consciousness-5 (avasthai)
- Mukkutraiyal (Three humoral theory)
- Udal Thathukkal (Somatic components)
- Panchabootha pancheeharanam
- Karu UrpathiVilakkam Various schools of Thoughts by Siddhars
- Karu Puthaithalum Maayaivazarchiyum
- Antinatal care in siddha
- Soolkanippu
- Makavu
- MakappeeRumvevveeRuuthayangalum
- Sugamakappeerunadai
- Sugamagaperunigalchigal
- Asaataaranamagaperugal
- Soolkukarnam
- Soolkaalattilthondrumkukarnanoigal
- Karucchithaivu
- Magapperukugarnam
- Soolpooppusanjaaranoi
- Antinatal care in siddha
- KuzhandhaikalinValarchi Paruvangal and its characteristics
- Developmental embryology -Growth and Development of new born infant, toddler, preschool, early school, and adolescence.
- Assessment of Growth and development standards/normograms ,humangenetics,molecular basis of disorders, molecular diagnosis, inheritance patterns, chromosomal/genetic clinical abnormalities ,genetic counselling and dysmorphism

References:

S.No	Name of Books, Language, Publishers & Year of Publication	Author
1.	Thotrakirama Araichiyum Siddha Maruthuva Varalarum	Dr.Ka.Su.Uthamarayan
2.	Noinaadal Noimudalnaadal-I, The Directorate of Indian	Dr.P.Shanmugavelu

	Medicine and Homoeopathy, Govt. Of Tamil Nadu, Chennai(1967)	
3.	Sidhamaruthuvanga churukkam The Directorate of Indian Medicine and Homoeopathy, Govt. Of Tamil Nadu, Chennai (1953)	Dr.Ka.Su.Uthama Rayan
4.	Kuzhanthai Maruthuvam (Baalavaagam)	Ka.Sa.Murugesamudhaliyar&Pon.GuruSironmani
5.	Pillaippinimaruthuvam	Dr.Sundarrajan
6.	Agathiyar Pillaithamil	
7.	Pararasasekaram Baalaroga nidhanam	
8.	Aathma rakshamirdhamenumVaithiya saarasankeeragam	
9.	Maadha rMaruthuvam, Siddha Medical Literature Research Centre, Chennai	Dr.ChidambarathanuPillai
10.	Pregnancy, childbirth, postpartum and newborn care - A guide for essential practice, WHO, United Nations Population Fund & UNICEF, 3rd edn., 2015	WHO
11.	Managing complications in pregnancy and childbirth - A guide for midwives and doctors, WHO; United Nations Population Fund; UNICEF & World Bank, 2003, ISBN: 9241545879	WHO
12.	Managing newborn problems - A guide for doctors, nurses and midwives, World Health Organization, Dept. of Reproductive Health and Research; United Nations Population Fund; UNICEF, ISBN: 9241546220	WHO
13.	WHO recommended interventions for improving	WHO

	maternal and newborn health - Integrated management of pregnancy and childbirth, WHO, 2007	
14.	Nelson's Textbook of Paediatrics	Harcourt Asia Saunders
15.	Smith's Recognition patterns of Human Malformations	
16.	Mudaliar and Menon's Clinical Obstetrics	SaralaGopalan



THIRD YEAR

PAPER- I PAEDIATRIC PURVIEW OF SOCIAL AND PREVENTIVE MEDICINE

1. Ante natal and post natal care of the child and mother
2. Concept of Immunity and immune enhancing measures including immunization
3. National and International programmes related to Pediatrics
4. The National Child survival and Safe Motherhood Program.
5. Adolescence and related Physical and Mental Problems.
6. Nutrition and Nutritional related / nutritional disorder
7. Breast feeding and its scientific importance- Siddha and modern aspect
8. Tradition and cultural issues pertaining to Child Care
9. Ethical issues in Paediatrics
10. Child care and Good parenting

References:

S.No	Name of book. Language, publishers & year of publication	Author
1.	Pararasa sekaram Baala roga nidhanam, Tamil, Thamarai Noolakam – 2003	Ponnaiyya Pillai
2.	Aathma rakshamirdham enum Vaithiya saara sankeeragam, Tamil, B.Rathna Nayagar, 2002	Kandasamy Mudhaliar
3.	Maadhar Maruthuvam, Tamil , Siddha Medical Literature Research Centre, Chennai	Chidambarathanu Pillai
4.	Pregnancy, childbirth, postpartum and newborn care - A guide for essential practice, English, , United Nations Population Fund & UNICEF	WHO
5.	Managing complications in pregnancy and childbirth - A guide for midwives and doctors,; English, United Nations Population Fund; UNICEF & World Bank,ISBN: 9241545879	WHO
6.	Managing newborn problems -A guide for doctors, nurses and midwives, English, World Health Organization, Dept. of Reproductive Health and Research; United Nations Population Fund; UNICEF, ISBN: 9241546220	WHO
7.	WHO recommended interventions for improving maternal and newborn health - Integrated management of pregnancy and	WHO

	childbirth, WHO	
8.	Standards for maternal and neonatal care - Group 1: General standards of care for healthy pregnancy and childbirth, English, World Health Organization, Department of Making Pregnancy Safer and Department of Reproductive Health and Research, 2007 (Web only version as a part of WHO Integrated Management of Pregnancy and Childbirth Care (IMPAC) Package)	WHO
9.	Jeeva raktchamirtham, Tamil, The Arrow Press, Madras, 2nd Edn., 1928	Subramaniya Pandithar
10.	Guide to Child Care (Parenting the Indian way), English, Vakils Feffer And Simons Ltd., ISBN: 9788184620085	R.K. Anand
11.	Mudaliar and Menon's Clinical Obstetrics, English	Sarala Gopalan
12.	"Care of the Newborn", English	Meharban Singh
13.	Maruthuva Kalanchiyam Vol.II Thai Sei Nalam, Tamil, Tamil valarchi kazhakam, 1995	Dr.Bakkiyanathan Chandra
14.	Sool Maruthuvam, Tamil, Department of Indian Medicine & Homoeopathy, 2005	Dr.P.M.Venugopal, H.P.I.M
15.	Thirumanthiraththil Maruthuvam, Tamil, 2011	Dr.Jayam Kannan, M.D., D.G.O

PAPER – II KUZHANDHAIMARUTHUVAM-POTHU (PAEDIATRICS-GENERAL)

1. PuraKaaranaNoigal
2. Aka KaaranaNoigal –
 - a. Kiranthi
 - b. Thodam
 - c. Mantham
 - d. Kanam
 - e. Karappan
 - f. Akkaram
 - g. Suram
 - h. Kalichal
 - b. Sanni
 - c. Valippu
 - d. Pandu
 - e. Sobai
 - f. Kamaalai
 - g. AmmaiNoigal

- h. KudarKirumikal
- i. KanNoigal
- j. MookuNoigal
- k. SeviNoigal
- l. Pal Noigal
- m. BalarVathaNoigal
 - o Dhasaivatham
 - o Vazhiazhalkeezhvaayul
 - o Valikeelvayu
- n. Lasunathabitham
- o. Peenism
- p. Venkuttam
- q. Manavazharchikolarugal
- r. PiraviNoigal
- s. Noithaduppumuraigal

References :

S.No	Name of book. Language, publishers & year of publication	Author
1.	Kuzhanthai Maruthuvam (Baala vaagadam), Tamil, Department of Indian Medicine, Chennai, 2007	Ka.Sa.Murugesa Mudhaliyar & Pon.Guru Sironmani
2.	Pillaippini Maruthuvam, Tamil, Department of Indian Medicine, Chennai, 2006	Dr.Sundarrajan
3.	Agathiyar Pillaith tamil, Tamil, Thamarai Noolagam,1998	S.P.Ramachandran
4.	Pararasa sekaram Baala roga nidhanam, Tamil, Thamarai Noolakam – 2003	Ponnaiyya Pillai
5.	Aathma rakshamirdham enum Vaithiya saara sankeeragam, Tamil, B.Rathna Nayagar, 2002	Kandasamy Mudhaliar
6.	Siddha Maruthuvam – Volume VII – Kuzhandhai Maruthuvam, Tamil, Tamil Valarchi Kazhagam, Chennai, 2013.	Dr.T.K.Kalyanasundaram, Dr.S.Gandhimathi, Dr.M.Meenakshi Sundaram
7.	Dhanvanthiri Baala vagadam, Tamil	
8.	Kuzhandhai vaithiyam, Tamil, Siddha Medical Literature Research Centre, Chennai, 1997	Chidambarathanu pillai,

9.	Balavagadam, Tamil, Department of Indian Medicine & Homoeopathy, Govt. of Tamil Nadu, Chennai, Revised Edn. 1998	C.S. Murugesu Mudaliar (Au.), Pon Kurusironmani
10.	Jeeva raktchamirtham, Tamil, The Arrow Press, Madras, 2nd Edn., 1928	Subramaniya Pandithar
11.	குழந்தை நல மருத்துவம், தமிழ் பல்கலைக் கழகம், தஞ்சாவூர், 2003, ISBN:9788170903154	டாக்டர்.ஞா.ராஜராஜேஸ்வரி, டாக்டர்.அ. ஜெகதீசன்
12.	Mathalai Noi thoguthi, Tamil, ATSVS Siddha Medical College and Hospital, Kanniyakumari, 2008 (Vol. I, II), 2009 Vol. III, ISBN : 9789380288109	Dr. P. Mohanraj
13.	Siddha Maruthuvam, Tamil, Tamilnadu Siddha medical council, Chennai, 2nd edn, 1987.	Dr. Kuppusamy Mudhaliar
14.	Ghai Essential Pediatrics, CBS Publishers & Distributors-New Delhi ISBN: 9788123923345	Vinod K Paul,
15.	Achar's Textbook of Pediatrics, (ed.), Universities Press	Swarna Rekha Bhat
16.	Nelson's Textbook of Paediatrics, English	Harcourt Asia Saunders
17.	Clinical Paediatrics, English	Aaruchamy & Lakshmanasamy

PAPER - III KUZHANDHA MARUTHUVAM-SIRAPPU (PAEDIATRICS-SPECIALISED TREATMENT)

SPECIAL PAEDIATRIC DRUG PREPARATIONS:

- Herbal drug preparations
- Mineral drug preparations
- Animal drug preparations

PAEDIATRIC DIETETICS:

SPECIAL TREATMENT PROCEDURES:

- Sirasthamba vaatham
- Moolaivalarchi kuraivu
- Balavaatham
- Piravikatti, kazhalaigal
- Vanthai noigal
- Elumbu murivu
- Mootu nazhuval
- Moolai Raththakkatti
- Orupakka kazhuthu saaivu (Torticollis) and other Piravi noigal

ROLE OF EXTERNAL THERAPIES IN PAEDIATRIC TREATMENT:

- Podi thimirthal
- Ottradam
- Pugai
- Thuvaalai
- Suttigai
- Nasiyam
- Vedhu
- Kattu
- Patru
- Kombu kattal
- Role of Varmam therapy in Paediatric treatment
- Yoga for children
- Dosage of pediatric medicines
- Duration of medications
- Udal vanmai
- Special Child care and good parenting
- Food related with rejuvenation
- Diseases of Adolescent

References:

S.No	Name of book. Language, publishers & year of publication	Author
1.	Kuzhanthai Maruthuvam (Baalavaagadam), Tamil, Department of Indian Medicine, Chennai, 2007	Ka.Sa.Murugesu Mudhaliyar & Pon.Guru Sironmani
2.	Pillaippini Maruthuvam, Tamil, Department of Indian Medicine, Chennai, 2006	Dr.Sundarrajan
3.	Agathiyar Pillaith tamil, Tamil, Thamarai Noolagam,1998	S.P.Ramachandran
4.	Pararasa sekaram Baala roga nidhanam, Tamil, Thamarai Noolakam – 2003	Ponnaiyya Pillai
5.	Aathma rakshamirdham enum Vaithiya saara sankeeragam, Tamil, B.Rathna Nayagar, 2002	Kandasamy Mudhaliar
6.	Siddha Maruthuvam – Volume VII – Kuzhandhai Maruthuvam, Tamil, Tamil Valarchi Kazhagam, Chennai, 2013.	Dr.T.K.Kalyanasundaram, Dr.S.Gandhimathi, Dr.M.Meenakshi Sundaram
7.	Dhanvanthiri Baala vagadam, Tamil	
8.	Kuzhandhai vaithiyam, Tamil, Siddha Medical Literature Research Centre, Chennai, 1997	Chidambarathanu pillai,
9.	Mooligai Iyal, Tamil , Pothigai Pathippagam, Ambasamuthiram, 1st Edn., 1994.	Arunachalam V.
10.	A Complete Manual on Siddha External Therapies,ShanlaxPublications,Maudurai,Tamil nadu,2017	Dr.G.Senthilvel.,M.D(S),Ph.D Dr.J.Jeyavenkatesh.,M.D(S),Ph.D
11.	Mathalai Noi thoguthi,Tamil , ATSVS Siddha Medical College and Hospital, Kanniyakumari, 2008 (Vol. I, II), 2009 Vol. III, ISBN : 9789380288109	Dr. P. Mohanraj
12.	Smith's Recognition patterns of Human Malformations, English	
13.	Siddha Materia Medica (Mineral & Animal Kingdom), English, Department of Indian Medicine & Homoeopathy, 2008	Dr.R.Anandan, Ph.D.,
14.	Thirumathiraththil Maruthuvam, Tamil, 2011	Dr.Jayam Kannan,M.D.,D.G.O
15.	External Therapies of Siddha Medicine, English, CTMR, Chennai, 2010	Dr.T.Thirunarayanan, Dr.R.Sudha
16.	Siddha 'Pattru" preparations for common Ailments, English, Ashram Siddha Yoga Research Institute, Salem & AYUSH,2011	Dr.S.Sridhar
17.	Maruthuva Kalanchiyam Vol.II Thai Sei Nalam, Tamil, Tamil valarchi kazhakam,1995	Dr.Bakkiyanathan Chandra
18.	Thirumanthiram, Tamil, Gangai Puthaka Nilayam, 2002	

PAPER – IV ESSENTIALS IN PAEDIATRICS

1. Disorders of Growth and Development
2. Infectious diseases
3. Nutritional Disorders
4. Respiratory Diseases
5. Cardio vascular Diseases
6. Gastro intestinal Diseases
7. Renal Diseases
8. Neurological Diseases
9. Haematological Disorders
10. Helminthic Infestations in children
11. Endocrine Disorders
12. Common skin disorders in children
13. Vitamin Deficiencies
14. Rheumatic disorders
15. Musculoskeletal disorders.

References:

S.No	Name of book. Language, publishers & year of publication	Author
1.	Guide to Child Care (Parenting the Indian way),English , Vakils Feffer And Simons Ltd., ISBN: 9788184620085	R.K. Anand
2.	Ghai Essential Pediatrics, CBS Publishers & Distributors-New Delhi ISBN: 9788123923345	Vinod K Paul,
3.	Achar's Textbook of Pediatrics, (ed.), Universities Press	Swarna Rekha Bhat
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6.	"Care of the Newborn" , English	Meharban Singh
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9.	குழந்தை நல மருத்துவம், , தமிழ் பல்கலைக் கழகம், தஞ்சாவூர், 2003, ISBN:9788170903154	டாக்டர்.ஞா.ராஜராஜேஸ்வரி, டாக்டர்.அ. ஜெகதீசன்

DISSERTATION

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