INDIAN MEDICAL GRADUATE TRAINING PROGRAMME- 2018- 2019

OBJECTIVE OF MEDICAL GRADUATE TRAINING PROGRAMME:

Graduate Medical Curriculum is oriented towards training students to undertake responsibilities, as a physician of first contact, capable of conducting Preventive, Promotive, Curative, Rehabilitative & Holistic aspect of Medicine. Training should be able to meet internationally accepted standards.

Indian Medical Graduate should acquire basic training in different aspects of medical and health care. The Importance of community aspects of Health care and rural health care should be recognized. Such experiences should be available throughout all the three phases of education & training. Further emphasis to be intensified by exposure to field practice areas and also during internship period. The aim is to enable them to function efficiently, under such settings.

It should emphasize community oriented health instead of disease oriented. Importance should be given for self-learning. The Indian Medical Graduate should give due weightage to fundamental aspects of subjects, common health problems, social factors influencing health and avoid unnecessary details of specialization.

Due importance should also be on, Family Welfare including Population Control. Emphasis placed on cultivating logical, scientific habits of thought, clarity of expression independence of judgment, ability to collect, analyze information & correlation.

The educational process should be placed in a historic background, as an evolving process. This is taught in an integrated manner by subject Specialists coordinated by Medical Education Unit of the College. The Curriculum objectives refer to areas of knowledge, science, best taught with clinical relevance, and hands on experience to hone their skills.

Every attempt is made to de-emphasize compartmentalization of disciplines, to achieve both horizontal, vertical integration in different phases.

Indian Medical Graduate should develop personality, character, and expression to function independently as Team Leader in his career. Faculty member should avail modern education Technology, with Integration of ICT in learning process. Medical Education Unit / Department established for faculty development, learning resource materials to teachers.

To implement the revised Curriculum State Governments, Institution should ensure that adequate financial, technical inputs provided.

NATIONAL GOALS:

Recognize “HEALTH FOR ALL” and health right of citizens. Understand National Policies & practical implementation.

Become exemplary citizen by observation of medical ethics, fulfilling social professional obligations to respond to National aspirations.

INSTITUTIONAL GOALS:

Become competent to diagnose, manage common health problems of individual, community, as Member of Health Team – Primary, Secondary, Tertiary levels based on history, physical examination, relevant investigations.

Understand rationale for different therapeutic modalities, "Essential drugs", side effects. Appreciate socio-psychological, cultural, economic, environmental factors affecting health, develop humane attitude towards professional responsibilities. Develop attitude for continued self learning, expertise, research in any chosen area of Medicine, action research, documentation skills.

Understand Family Welfare, Maternal Child Health, Sanitation, Water supply, Prevention, Control of Communicable, Non- Communicable, Immunization, Health Education, IPHS standard of health care, Bio-Medical Waste Disposal. Organize Institutional arrangements. Acquire basic management skills in areas of human resources, materials, resource management related to health care delivery. IMG should also get acquainted with General & Hospital Management, principle inventory skills, and counseling.

Identify community health problems, designing, corrective steps, evaluating outcome. Work as a leading partner in health care teams, acquire proficiency in communication skills. Become competent to work in varies health care settings. Develop personal characteristics, attitudes, personal integrity, sense of responsibility, dependability and show concern for other individuals.

PROGRAMME COURSE OUTCOME:

A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
1**) A . HUMAN ANATOMY:** a) Comprehend normal disposition, clinically relevant interrelationships, functional cross sectional anatomy various structures. b) Identify microscopic structure, correlate elementary ultra-structure of various organs, tissues, correlate with structure, and functions in altered state in various disease processes. c) Understand basic structure, connections of CNS system to analyze , regulate functions of organs , systems. Able to locate site of gross lesions according to the deficits. d) Know basic principles, sequential development of organs systems, recognize critical stages of development, effects of common teratogens. Genetic mutations, environmental hazards, major variations, abnormalities.	a) Identify, locate all body structures, and mark topography living anatomy. b) Identify organs, tissues , microscopically c) Understand principles of karyotyping, Identifying gross congenital anomalies. d) Understand principles of newer imaging techniques,interpretation of Computerized Tomography, Scan , Sonogram e) Understand clinical basis of common procedure- IM, IV, LP , Kidney biopsy etc.,	a) Able to comprehend regulation, functional integration of organs , systems in the body for interpretation of the anatomical basis of disease process.
2**) HUMAN PHYSIOLOGY , BIO-PHYSICS:** 1) Explain normal functioning of all organ systems, interactions for well coordinated total body function. 2) Assess relative contribution of each organ system in the maintenance of milieu interior. 3) Elucidate physiological aspects of normal growth , development 4) Describe physiological response, adaptations to environmental stresses. 5) List physiological principles, pathogenesis, treatment of disease.	1) Conduct designed experiments for study of physiological phenomena 2)Interpret experimental/ Investigative data 3) Distinguish between normal , abnormal data performed, observed in the laboratory.	Integrated knowledge of organ structure , function, regulatory mechanisms.

B) BIOPHYSICS: (5 hours **:** Didactic lectures – 3 hours, Tutorial /group discussion -1 hour , Practical – 1 hour)

1. **LECTURES:** Physical principles of transport across cell membranes , capillary wall, Biopotentials, Physical principles governing flow of blood in heart , blood vessels, flow of air in air passages.

2**. TUTORIAL/GROUP DISCUSSION** – Pertaining to the Topic

3**. PRACTICALS** - Demonstration of Bio-potential on oscilloscope, EEG, EMG, ECG

3) BIOCHEMISTRY , MEDICAL PHYSICS, MOLECULAR BIOLOGY:		
A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
a) Describe molecular, functional cell organization, sub-cellular components . b) Identify structure, function, inter-relationships of bio-molecules, deviation. c) Summarize fundamental aspects of enzymology , clinical application in regulation d)Describe digestion assimilation of nutrients, consequences of malnutrition. e) Integrate various aspects of metabolism, regulatory pathways. f) Explain biochemical basis of inherited disorders & sequelae. g) Describe mechanisms involved in maintenance of body fluid , pH, homeostasis. h)Outline molecular mechanisms of gene expression , regulation principles of genetic engineering, application. i) Summarize molecular concepts of body defense – application in Medicine. j) Outline Biochemical basis of environmental health hazards, cancer , carcinogenesis k) Familiarize with principles of various conventional specialized laboratory investigation, instrumentation analysis, data interpretation. l) Use of experiments to support theoretical concepts of clinical diagnosis.	a) Use conventional techniques /instruments. Perform biochemical analysis relevant to clinical screening diagnosis. b) Analyze, interpret investigate Data. c) Demonstrate skills of solving scientific, clinical problems, decision making.	Integrate molecular events with structure, function of human body in health, disease.

PHASE II : 4) **PATHOLOGY** **a)** Describe structure , ultra structure of sick cell, mechanisms of cell degeneration, death , repair, correlate structural functional alterations. b) Understand patho-physiological processes governing homeostasis, disturbance, morphological , clinical manifestations, disturbed mechanisms. c) Understand mechanisms , patterns to tissue response to injury , patho-physiology of disease processes, clinical manifestations. d) correlate normal altered morphology of different organ systems in common diseases to understand disease processes , clinical significance.	**a)** describe rationale **,** principles of technical procedures, lab tests, interpretation. b) Perform bed-side tests on blood, urine, biological fluid samples c) Plan scheme of investigations, diagnosis, management of common disorders. d) Understand biochemical/physiological - disturbances, collaborate pre clinical departments**.**	Integrate causes of disease , etiological factors (social, economic and environmental) contributing to natural history of diseases.
5) **MICROBIOLOGY**: a) Understand infective micro-organisms of human body, host parasite relationship. b) List pathogenic micro-organisms (bacteria, viruses, parasites, fungi and pathogenesis. c) Indicate modes of transmission of pathogenic opportunistic organisms sources – insect vectors responsible for transmission of infection. d) Describe mechanisms of immunity to infections. e) Identify suitable antimicrobial agents for treatment of infections , immunotherapy, different vaccines. f) Apply methods of disinfection , sterilization to control , prevent hospital , community acquired infections. g) Recommend laboratory investigations- bacteriological examination of food, water, milk air.	a) Plan interpret laboratory investigations, diagnosis infectious diseases , etiology. b) Identify common infectious agents, use antimicrobial sensitivity tests, select suitable antimicrobial agents. c) Use bed-side tests for detection of infectious agents , malaria, filarial, gram staining smears, AFB staining , stool sample for ova cyst. d) Use correct method of collection, storage transport of clinical material for microbiological investigations.	Understand infectious diseases of national importance clinical, therapeutic preventive aspects.

A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
6) PHARMACOLOGY: a) Describe pharmacokinetics , pharmaco-dynamics of essential, commonly used drugs. b) Understand indications, contraindications, interactions, adverse reactions. c) Use of appropriate cost effective , safety drug catering to individual needs, mass therapy under National Health Program. d) Describe pharmacokinetic basis, clinical presentation, diagnosis, management of common poisonings & addictive drugs. e) Classify environmental, occupational pollutants, management issues. f) Indicate causations in prescription of drugs especially in pregnancy, lactation, infancy, old age. g) Integrate concept of rational drug therapy in clinical pharmacology. h) State principles underlying concept of 'Essential Drugs'). i) Evaluate ethics, introduction of new drugs.	a) Prescribe drugs for common ailments. b) Recognize adverse reactions, interactions of commonly used drugs. c) Observe experiments designed for study of effects of drugs, bioassay, interpretation of experimental data. d) Scan information on common pharmaceutical preparations, critically evaluate drug formulations.	Integrated teaching with clinical departments , pre clinical departments.
7) **FORENSIC MEDICINE , TOXICOLOGY:** a) Identify basic medico-legal aspects of hospital, general practice. b) Define medico-legal responsibilities of general physician in community services-UHTC, RHTC. c)Appreciate physician's responsibilities in criminal matters, respect for codes of medical ethics. d) Diagnose, manage, identify legal aspects of common acute, chronic poisonings. e) Describe medico-legal aspects, post-mortem examination findings in unnatural death, poisonings. f) Detect occupational, environmental poisoning prevention, epidemiology of common poisoning, legal aspects pertaining to Workmen's Compensation Act. g) Describe general principles of analytical Toxicology. h) Consumer Protection Act-Doctors have rights responsibilities, effective service delivery.	a) Observations, logical inferences initiate enquiries in criminal matters, medico-legal problems. b) Diagnose treat common emergencies in poisoning , manage chronic toxicity. c) Observations, interpret findings at postmortem examination. d) Observe principles of medical ethics.	Integrated approach towards Allied Disciplines-Pathology, Radiology, Forensic Sciences, Hospital Administration at all levels of Health care, Integration, relevant disciplines.

8) **COMMUNITY MEDICINE :** **a)** Describe health care delivery system, rehabilitation of disabled. **b)** Describe National Health Programmes, emphasis on maternal , child health programmes, family welfare planning, population control. c) List epidemiological methods, application to communicable, non-communicable diseases in community or Hospital. d) Apply biostatistical methods, Techniques. e) Outline demographic pattern of the country, roles of individual, family, Community socio-cultural milieu in Health disease. f) Describe Health Information Systems. g) Enunciate principles, components of primary Health care, National Health Policies to achieve goal of ' Health for All'. h) Identify environmental, Occupational hazards, control. i) Describe importance of water, sanitation. j) Understand principles of Health Economics, Health Administration, Education in relation to community.	a) Use Epidemiology as a scientific tool for rational decisions relevant to community, Individual patient intervention. b) Collect , analyze, interpret, present simple community, hospital base data. c) Diagnose, manage common health problems, emergencies at individual, family , community levels. with reference to Health care resources, prevailing socio-cultural beliefs. d) Diagnose manage maternal , child health problems, advise couples, community on family planning methods. e) Diagnose, manage common nutritional problems at individual, community level. f) Plan, implement, evaluate Health Education Programmes with AV aids. g) Interaction with Members of Health Care Team, participations in organization of Health Care Services, implementations of National Health programmes.	a) Integrate etiology with illness in environment, community, individual Health. b) Respond with leadership qualities. c) Institute remedial measures.

A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
9) **MEDICINE , ALLIED SPECIALITIES**: a) Diagnose common clinical disorders, reference to infectious diseases, nutritional disorders, tropical, environmental diseases. b) Outline various modes of management, drug therapeutics, dosage , side effects, toxicity, interactions, indications, contra-indications. c) Propose diagnostic, investigative procedures, interpretation. d) First level management of acute emergencies promptly , efficiently, appropriate level of referral. e) Recognize geriatric disorders , management.	a) Develop clinical skills (History taking, clinical examination instruments of examination) to diagnose various common medical disorders, emergencies. b) Refer patient to secondary, tertiary level of Health care after instituting primary care. c) Perform investigations- haemogram, stool, urine, sputum, biological fluid examinations. d) Assist bedside investigations – pleural tap, lumbar puncture, bone marrow aspiration/biopsy, liver biopsy.	a) Integration with Community medicine ,physical medicine, rehabilitation , manage National Health Programs, to view patient in total physical, social, economic milieu. b) Relevant academic inputs providing scientific basis of clinical medicine e.g. anatomy, physiology, biochemistry, microbiology, pathology, pharmacology.
10) **PEDIATRICS** , **NEONATOLOGY:** a) Describe normal growth, development during foetal life, neonatal period, childhood , adolescence & deviations. b) Describe common paediatric disorders, emergencies – epidemiology, etiopathogenesis, clinical manifestations, diagnosis, rational therapy, rehabilitation. c) State age related requirements of calories, nutrients, fluids, drugs. d) Describe preventive strategies for common infectious disorders, malnutrition, genetic, metabolic disorders, poisonings, accidents, child abuse. e) National Programmes related to child health , immunsation programmes.	a) Detailed pediatric history, conduct , physical examination of children, neonate, clinical diagnosis, bedside investigative procedures, lab investigation, results, plan , institute therapy. b) Take anthropometric measurements, resuscitate newborn infants, prepare ORT, Tuberculin test, vaccines,perform venesection, start IV saline, nasogastric feeding. c) Conduct diagnostic procedures – lumbar puncture, liver, kidney biopsy, bone marrow aspiration, pleural tap ascetic tap. d) Distinguish between normal newborn babies &care of special babies, institute early care- Preterm , LBW babies, guidance, counseling for breast feeding. e) Ambulatory care to sick children, indications for specialized/IP care, timely referral.	Integrate preventive, Promotive, curative, rehabilitative services in community , at hospital as part of TEAM integrated with disciplines like, Anatomy, Physiology, Biochemistry, Microbiology, Pathology, Pharmacology, Forensic Medicine, Community Medicine , Physical Medicine , Rehabilitation.

A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
11.PSYCHIATRY: a) Comprehend nature, development of different aspects of normal human Behaviour – learning, memory, motivation, personality, intelligence. b) Recognize differences between normal, abnormal behavior. c) Classify psychiatric disorders. d) Recognize clinical manifestations, management of organic psychosis, functional psychosis, schizo-phrenia, affective disorders, neurotic disorders, personality disorders, drug alcohol dependence, psycho-physiological disorders, psychiatric disorders of childhood adolescence. e) Describe rational use of different modes of therapy in psychiatric disorders.	a) Interview patient , communicate & establish patient doctor - relationship b) Elicit case history, clinical examination assessment of mental status. c) Define, elicit, interpret psycho-pathological symptoms, signs d) Diagnose, manage common psychiatric disorders. e) Identify, manage psychological reactions, disorder in community setting.	Prepare students to deliver preventive, Promotive, curative, re-habilitative services , appropriate referral to Specialized Psychiatry/Mental Hospital . b) Integrated with Medicine, Neuro Anatomy, Behavioral Sciences, Forensic medicine.
12. DERMATOLOGY , STD: **a)** Understand common diseases, clinical manifestations, emergencies, Investigations, diagnosis. b) Understand modes of therapy used in dermatological conditions. c) Know commonly used drugs, doses, side-effects/toxicity, indications, contra-indications, interactions. d) Describe modes of management – medical surgical procedures for comprehensive management.	a) History , information in chronological order. b) Clinical examination, physical findings, diagnose common disorders, emergencies. c) Perform simple, routine investigative office procedures –esp. examination of scrapings for fungus, preparation of slit smears, staining for AFB for leprosy patients, STD cases. d) Skin biopsy for diagnostic purposes. e) Manage common diseases, appropriate timely referral . f) Assist in performance of common procedures- laryngoscopic examination, pleural aspiration, respiratory physiotherapy, laryngeal intubation, pneumo-thoracic drainage/aspiration.	Integration with Departments of Medicine, Surgery, Microbiology, Pathology, Pharmacology , Community medicine.

A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
13. **SURGERY, ALLIED SPECIALITIES** **a**) Describe etiology, pathophysiology, diagnosis, management of common surgical problems, emergencies- adults, children. b) Understand fluid, electrolyte replacement , blood transfusion. C) Define asepsis, disinfection, sterilization, antibiotics usage. d) Describe common malignancies , management , prevention. e) Enumerate anaesthetic agents, indications, administrations, contraindications, side effects.	a) Diagnose common surgical conditions acute, chronic – adult, children. b) Plan laboratory tests, interpretation. c) Identify, manage hemorrhagic, septicemia, other types of shock. d) Ability to maintain patent air-way, resuscitate. critically injured patient, cardio-respiratory failure, drowning. e) Monitor head , chest, spinal, abdominal injuries - adults, children. f) Provide primary care for burns. g) Acquire principles of operative surgery – pre-operative, operative, post operative care, monitoring. h) Treat open wounds- preventive measures for tetanus, gas gangrene. i) Diagnose neonatal, pediatric surgical emergencies, primary care , referral to secondary/tertiary centres. j) Identify congenital anomalies, referral. k) observed/assist/perform- I&D of abscess, Debridement, suturing open wound, venesection, Excision of simple cyst, tumours, Biopsy, Catheterization , nasogastric intubation, circumcision, Meatotomy, Vasectomy,Peritoneal, pleural aspirations, Diagnostic proctoscopy, Hydrocele operation, Endotracheal, intubation Tracheostomy, cricothyroidotomy, Chest tube insertion.	Integrated at various stages with pre, para, other clinical Departments.

A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
14. **ORTHOPEDICS:** a) Explain principles of recognition of bone injuries, dislocation. b) Detect, manage common infections of bones, joints. c) Identify congenital, skeletal anomalies, referral. d) Recognize metabolic bone diseases. e) Explain etiogenesis, manifestations, diagnosis of bones neoplasm.	a) Detect sprains, first aid measures for fractures, sprains, manage uncomplicated clavicular, Colles's forearm, phalangial fractures. b) Techniques of splinting, plaster, immobization. c) Manage common bone infections, indications for sequestration, amputations, corrective measures for bone deformities. d) Rehabilitation for Polio, Cerebral Palsy, Amputation. e) **APPLICATION**: Ability to perform certain orthopedic skills, counselling of skeletal related conditions- at primary, secondary level.	Integration with Anatomy, Surgery, Pathology, Radiology, Forensic Medicine.
15. **RADIO- DIAGNOSIS, RADIOTHERAPY** **A) Radio-diagnosis, imaging:** **a)** Understand basics of X- ray production, uses, hazards. b) Diagnose bones changes- fractures, infection, tumours, metabolic bone diseases. c) Identify, diagnose radiological changes in chest, mediastinal, skeletal, G.I, Tract, Hepato-biliary system, G.U. system. d) Learn imaging techniques, isotopes C.T., Ultrasound M.R.I, D.S. A. b) **Radiotherapy:** **a)** Identify symptoms, signs of cancers, investigations, management. b) Explain effects of radiation therapy on human beings, basic principles. c) Know radio-active isotopes, physical properties. d) Know advances in radiotherapy in cancer management, knowledge of equipments.	a) Use basic protective techniques during various imaging procedures. b) Interpret X-rays, techniques. c) Advise appropriate diagnostic procedures in specialized circumstances to appropriate specialists. a) Clinical history of suspected malignant disease. b) Assist various specialists in anticancer drugs, use of equipment.	

A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
16. OTO-RHINO-LARYNGOLOGY: **a)** Basic pathophysiology of common ENT diseases, emergencies. b) Rational use of commonly used drugs, adverse reactions. c) Common investigative procedures, interpretation.	a) Examine, diagnose ENT problems, pre-malignant , malignant disorders of head, neck b) Manage ENT problems at first level of care, referral. c) Assist/carry minor surgical procedures-ear syringing, ear dressings, nasal packing. d) Assist procedures- tracheostomy, endoscopies, removal of foreign bodies.	Integrated approach towards Neurosciences, Ophthalmology, General Surgery.
17. **OPHTHALMOLOGY**: a) Understand common eye problems. b) Principles of management of major ophthalmic emergencies. c) Systemic diseases affecting eye. d) Effects of local , systemic diseases on patient's vision & minimize complications. e) Adverse drug reactions. f) Magnitude of blindness, main causes. g) National programme of control of blindness, implementation at various levels. h) Eye care education for prevention. i) Orgnization of primary health care, functioning of ophthalmic assistant. j) Integration of National Programme for Control of Blindness. k) Eye bank organization.	a) History pertinent to general health, ocular status. b) Diagnostic procedures- visual acuity testing, examination of eye, Schiotz tonometry, Staining for Corneal pathology confrontation perimetry, Subjective refraction, presbyopic correction, aphakia, direct ophthalmoscopy, conjunctival smear , Cover test. c) Diagnose, treat common eye problems. d) Interpret ophthalmic signs related to common systemic disorders. e) Assist/observe therapeutic procedures- subconjunctival injection, Corneal/ Conjunctival foreign body removal, Carbolic cautery for corneal ulcers, Nasolacrimal duct syringing, tarsorraphy. f) First aid in Major ophthalmic emergencies. g) Assist to organize community surverys for visual check up h) Communicate with public , individual, motivate for surgery in cataract, eye donation. i) Rapport with senior, colleagues, paramedical workers.	Integration with Neurosciences, Otorhino-Laryngology, General Surgery, Medicine

A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
18. **OBSTETRICS , GYNAECOLOGY:** a) Outline anatomy, physiology, pathophysiology of reproductive system, common conditions. b) Detect normal pregnancy, labour , puerperium, manage patients. c) List leading causes of maternal perinatal morbidity, mortality. d) Understand contraception, various techniques, methods of MTP, Sterlisation, complications. e) Identify use, abuse, side effects of drugs in pregnancy, pre-menopausal, post-menopausal periods. f) Describe National Programme of Maternal, Child Health , Family Welfare & Implementation at various levels. g) Identify common gynaecological diseases, management. h) State indications, techniques, surgery complications like caesarian section, laparotomy, abdominal , vaginal hysterectomy, Fothergill's operation, vacuum aspiration for M.T.P.	a) Examine pregnant women high risk pregnancies, appropriate referrals. b) Conduct normal delivery, complications, postnatal care. c) Resuscitate newborn, congenital anomalies. d) Advise couples for contraceptive devices, insertion, removal of I.U.C. D. e) Perform pelvic examination, diagnose, manage common gynaecological problems – early detection of genital malignancies. f) Perform vaginal cytological smear, post coital test, wet vaginal smear examination for Trichomonas vaginalis, moniliasis, gonorrheal gram stain. g) Interpret biochemical, histopathological, radiological, ultrasound data.	Integrate clinical skills with other disciplines, coordinate family welfare programmes for National goal of Population Control.

GENERAL TRAINING GUIDELINES:

1. Attending the Maternity Hospital , Maternity Wards of General Hospital- Antenatal , puerperium, minimum 5 months in OP & IP –including IP. One month Resident students in Maternity ward. Conduct 10 labour cases, under supervision, Assist 10 other cases. Certificate to be signed by Medical Officer, with the concurrence of the Supervising Officers.

FAMILY PLANNING: Training in all three phases, Internship as per guidelines.

A) KNOWLEDGE	B) SKILLS	C) INTEGRATION
19. **COMMUNITY MEDICINE**: a) Explain principles of Sociology – Demographic Population dynamics. b) Identify social factors in health, disease , disability- Urban, Rural societies. c) Appreciate impact of urbanization on health, disease. d) Observe, interpret dynamics of community behavior. e) Describe elements of normal, Social Psychology. f) Observe principles of practice in Hospital, Community setting.	a) Principles of practice of medicine in Hospital, Community settings, Familiarity with elementary nursing practices. b) Art of communication with patients- History taking , Medico- Social work.	

20**. DENTAL**: Topic: 1 Dental Caries, 2. Edentulous state 3. Malocclusion 4. Oral Cancer 5. Periodontal disease.

K= Knows, KH= Knows How, SH= Shows how, DOAP = Demonstrate, Observe, Assess, Perform
AC= Domain, Core = Y/N

DE 1.1	Enumerate parts of tooth	K	K	N	Lecture, Small group discussion	Viva voce	Human Anatomy	
DE 2.1	Discuss various causes for partial /complete loss of teeth, associated structures.							
DE 3.1	Aware of malocclusion & tissues							
DE 4.1	Discuss prevalence of oral cancer, types affecting tissues of oral cavity							
DE 5.1	Enumerate parts of tooth, supporting structures							
DE 1.2	Discuss aetiology of microorganisms in pathogenesis of dental caries.	K	KH	Y			Microbiology	
DE 2.2	Discuss local , systemic sequelae of partial /complete loss of teeth, assoc structures.							
DE 3.2	Enumerate impact of malocclusion on aesthetics, health.							
DE 4.2	Discuss role of etiological factors in formation of precancerous/cancerous lesions.						Vertical integration with pathology	Horizontal Integration with ENT.
DE 5.2	Enumerate common diseases affecting periodontium, identify local, systemic causes.							

DE 1.3	Identify Dental caries	S	SH	N	Observation, Bed side clinics	Skill assessment		
DE 2.3	Identify Complete complement of teeth, identify missing teeth							
DE 3.3	Identify malocclusion							
DE 4.3	Identify potential pre-cancerous/cancerous lesions						Vertical integration with pathology	Horizontal Integration with ENT
DE 5.3	Identify Periodontal disease							
DE 1.4	Discuss role of dental caries, septic focus.	K	KH	Y	Lecture, small group discussion	Viva voce	Vertical integration with Microbiology, General Medicine	
DE 2.4	Enumerate common ways of restoring edentulous state							
DE 3.4	Counsel patients with respect to correction of malocclusion , may have role on oral health esp TMJ	A/C	SH	Y	DOAP session	Log book Entry		
DE 4.4	Counsel patients to risks of oral cancer with respect to tobacco, smoking, alcohol, other causes						Vertical integration with Pathology	Horizontal Integration with ENT
DE 5.5	Counsel patients reg. Oral hygiene, diet& direct bearing on systemic health and vice versa.							
PA 24.1	Describe Etiology , Pathology, Clinical features of oral cancers	K	KH	N	Lecture, small group discussion	Written Viva - voce	Vertical integration with Dentistry	

INTERNSHIP

1. **GENERAL OUTCOMES**- Graduate is expected to learn methods/modalities for practice of medical, health care, acquire skills under supervision to function independently. Emphasis laid on larger number of hands on session, practice on simulators.
2. **SPECIFICE OUTCOMES** – Diagnose clinical common diseases, appropriate referral. Discreetly use essential drugs, infusions, blood ,- substitutes, laboratory services. Manage medical, surgical obstetric, neonatal, paediatric, emergencies – First level care. Demonstrate skills in monitoring National Health Programme , schemes, Develop leadership qualities , deliver health, family welfare services in existing social-economic, political, Cultural environment. Render services to chronically sick , disabled, communicate with patient , community.
3. **COURSE OUTCOMES** :

(I) Community Medicine – Hands on experience in Community Health Centre / District Hospital/ Attachment to General Practitioner.

(a) Clinical competence for diagnosis of common ailments, bed side investigation, primary care techniques. Gain information on 'Essential drugs', usage

Recognize medical emergencies, resuscitate, institute initial treatment, appropriate referral.

1. Undergo specific GOI/Ministry of H & FW approved training using Manual for MOs' in National Health Programmes (child survival , safe motherhood –EPI, CDD, ARI, FP, ANC , safe deliver, TB, Leprosy.
    a) Expertise in immunization against infectious disease.
    b) Participate in preventive , control of endemic diseases , nutritional disorders.
    c) Skills in Family Welfare Planning procedures.
    d) Management of National Health Programmes.
2. Conduct survey , arrive at community diagnosis.
3. Conduct programmes on Health Education using AV- aids, utilize scientific information for promotion of community Health.
4. Establish linkages with Agencies – water supply, food distribution, environmental/social.
5. Become professional with dedication, resourcefulness, leadership.
6. Acquire managerial skills, delegation of duties to paramedical staff, health professionals.

(II) TALUQA HOSPITAL : Participate with members of Health Team, acquire leadership qualities**,** Community diagnosis in epidemics, control measures for communicable diseases. Analyze Hospital based morbidity , mortality statistics. Use essential cost effective drugs , know side effects. Health Education to individual/ Community reg. TB, Small family, spacing , appropriate contraceptives, applied
Nutrition , care of mothers, children immunization, participation in School Health Programme.

(III) PRIMARY HEALTH CENTRE:
Participate in family composite Health care, Inventory of events, all modules on field practice for community Health e.g. safe motherhood, nutrition surveillance, rehabilitation, diarrhea. Competence in diagnosis, management of common ailments e.g. Malaria, TB , Enteric fever , CCF, Hepatitis, Meningitis,
ARF. Learn FW Programmes (ANC, Normal delivery, Contraception). Village attachment of one week to understand issues of community health, exposure to village health centers, ASHA Sub Centers.

2. GENERAL MEDICINE: Diagnose clinically – History, Physical Examination, Lab, Management. Include Tropical diseases (Parasitic, bacterial, Viral , Nutritional , dehydration, electrolyte disturbances), systemic illnesses. Assist care team in ICU s' of cardiac, respiratory hepatic, neurological, metabolic emergencies. Conduct laboratory investigation- Blood, Urine, Stool, Sputum, Throat swab, CSF.
Conduct diagnostic procedures – Urethral catheterization, Proctoscopy, Ophthalmoscopy / Otoscopy, Indirect laryngoscopy. Therapeutic procedures - insertion of Ryles Tube ,Pleural, Ascitic tap, CSF installing air way tube, O_2 administration. Do Biopsy Procedures - Liver, Kidney, Skin, Nerve, Lymph node, muscle biopsy, Bone marrow aspiration, Biopsy of Malignant lesions surface, Nasal/nerve/skin smear for leprosy. Usage of life saving procedures- aspirator, reaspirator , defibrillator. Use of different monitoring devices – cardiac monitor, blood gas analysis . Team member in Total Health Care of individual , follow –up , social rehabilitation.

3.PAEDIATRICS: Diagnose, manage common childhood disorders, neonatal disorders, acute emergencies examining sick children, information recording. Do diagnostic techniques- blood, abscess, C.S.F, urine, pleura, peritoneum, tissue biopsies. Focus on patient care, immunization, perfusion techniques, feeding procedures , tuberculin testing , breast feeding counseling. Use of equipment – Vital, Temperature monitoring, resuscitation at birth , care of ICU children.Screening of newborn babies risk factors for anomalies, preventive steps. Collaborate with parents individual, collective surveillance of growth,

development of new born babies, infants, children, recognize growth abnormalities, anomalies of psychomotor development, detect congenital abnormalities. Assess nutritional, dietary status of infants, children, organize prevent , detect, follow up deficiency disorders, at individual, community level, protein-energy malnutrition, A,B,C,D deficiencies, Iron deficiency. Institute early management of common childhood disorders, paediatric dosage, ORT. Partticipate actively in childrens public health programme.

4.**GENERAL SURGERY:** Diagnose emergency, surgical illnesses. Resuscitate critically injured patient, severe burns patient, control surface bleeding, manage open wound. Monitor patients of head, spine, chest abdominal, pelvic injury. Institute first-line management of acute abdomen. Perform venesection, tracheostomy, endotracheal intubation, catheterize patients with acute retention, perform trocar cystostomy, drain superficial abscesses, wound suturing, circumcision, biopsy of surface tumours, vasectomy.

5.CASUALTY: Identify acute emergencies, manage acute anaphylactic shock, peripheral-vascular failure, shock, acute pulmonary oedema, left Ventricular failure, drowning poisoning seizures.bronchial asthma, status asthmaticus, hyperpyrexia, comatose patients – airway positioning, aspiration, injuries. Emergency management of burns, trauma victims. Identify medicolegal cases exp. Injury, poisoning, sexual offences, intoxication, unnatural conditions.

6.OBSTETRICS, GYNAECOLOGY: Develop skills to diagnosis early pregnancy , ante-natal care, pathology of pregnancy related to abortions, ectopic pregnancy, tumours complicating pregnancy, acute abdomen in early pregnancy, hyperemesis gravidarum. Detection of HRP – PIH, hydramanios, antepartum haemorrhage, multiple pregnancies, abnormal presentations, IUGR. Antenatal pelvic assessment, CPD, Induction of labour, amniotomy, normal labour, detection of abnormalities, PPH, repair of perennial tears. Assist in forceps deliver, Caesarean section, POP care , detection, management of lactational abnormalities, NST, S/E, P/V PR examinations for detection of congenital, inflammatory, neoplastic, traumatic conditions of vulva, vagina, uterus, ovaries. MLC examination. Perform procedures – D&C , fractional curettage, endometrial biopsy, aspiration, pap smear , IUCD, Minilap ligation, catheterization, SR, Cervical punch biopsy. Assist major abdominal, vaginal surgeries. Assist follow up POP cases O&G – Colposcopy, II TRIMESTER MTP, example, Emcredyl Prostaglandin instillations, oral contraception.

7. OTO RHINO LARYNGOLOGY: Diagnosis of Ear, Nose, Throat diseases , emergencies, malignant neoplasma of ENT. Undertake minor surgical procedures- ear syringing antrum puncture, nose and external canal packing, nasal douching, FB removal. Observed assisted endoscopic procedures, trachesotomy. Team member in community diagnosis- CSOM, National deafness Programme, Rehabilitative Programmes.

8.OPHTHALMOLOGY: Diagnose, manage Trauma, Acute conjunctivitis, allergic conjunctivitis, xerosis, entropion, corneal ulcer, iridocyclitis, myopia, hypermetropia, cataract,glaucoma, ocular injury, sudden loss of vision. Assess refractive errors, correction, ocular changes in common systemic disorders. Investigative procedures- Tonometry, syringing, direct ophthalmoscopy, subjective refraction, fluoresce in corneal staining. Carry / assist – Subconjunctival injection, Ocular bandaging, Removal of concretions, Epilation, electrolysis, Corneal foreign body removal, Cauterization of corneal ulcers, Chalazion, Entropion, Suturing conjunctival tears, Lids repair, Glaucoma surgery (assisted), Enucleation of eye in cadaver. Know methods of rehabilitation of the blind.

9.ORTHOPAEDICS: THERAPEUTIC- Splinting – emergency, definitive, post operative, application of Thomas splint. Manual reduction of common fractures – phalangeal, metacarpal, metatarsal, Colles's fracture, common dislocations-interphalangeal meta-carpophalangeal, elbow , shoulder dislocations, Plaster cast application for undisplaced fractures of arm, fore arm leg , ankle. Emergency care of multiple injury patient, transport , spinal cord injury.

SUPERVISORY SKILL: Prognosis of poliomyelitis, cerebral palsy, CTEV , CDH. Rehabilitation of amputees, mutilating traumatic, leprosy hand deformities
OBSERVE /ASSIST- Drainage for acute osteomyelitis, sequestrectomy in chronic osteomyelitis, application of external fixation, internal fixation of fractures of long bones.

10.DERMATOLOGY, SEXUALLY TRANSMITTED DISEASES: Conduct clinical examination, elicit , interpret physical findings, diagnose disorders, emergencies. Perform investigations – scraping examination for fungus, preparation of slit smears, AFB staining for leprosy, STD cases, Diagnostic skin biopsy , management appropriate referral.

11.TUBERCULOSIS, RESPIRATORY DISEASES: Conduct clinical examination, elicit, interpret clinical findings, diagnose common respiratory disorders, emergencies. Investigations for sputum Collection, examination AFB, chest X-rays , respiratory function test. Interpret of blood gases, pH , appropriate referral , laryngoscopy, pleural aspiration respiratory physiotherapy, laryngeal intubation, pneumo-thoracic drainage aspiration.

12.**ANAESTHESIA**: Perform pre-anaesthetic check up, medications, venepuncture, IV drip , laryngoscopy, endotracheal intubation, lumbar puncture, spinal anaesthesia, simple nerve blocks, simple GA procedures under supervision, monitor patients. Manage emergency anaesthesia problems, maintain records, treat complications , C.P.B.R , recognize cardiac arrest.

13.RADIO-DIAGNOSIS: Identify , diagnose all aspects of Emergency Room Radiology-acute abdominal, traumatic conditions – head injuries, Medical Surgical Radiological emergencies. Basic hazards, precautions in Radio-diagnostic practices.

14.PHYSICAL MEDICINE, REHABILITATION: Competence for diagnosis, history, assessment of common disabling conditions- polio, cerebral palsy, hemiplegia, paraplegia, amputations. Team Member in total rehabilitation, follow up of disabling conditions. Principles, procedures of fabrication, repair of artificial limbs, appliances, various therapeutic modalities, self help devices , splints, mobility aids. Familiarity with accessibility problems, home making for disabled, simple exercise therapy in common conditions- prevention of deformity in polio, stump exercise in an amputee etc.

15FORENSIC MEDICINE , TOXICOLOGY: Identify medico legal problems in hospital , general practice, medico legal responsibilities , management of basic poisoning , handle cases of sexual assault, prepare MLC reports ,learn PM procedures , police formalities