Department of Medicine
MBBS : Course name: General Medicine
Code No.:1101-41

(i) Goal: The broad goal of the teaching of undergraduate students in Medicine is to have the knowledge, skills and behavioural attributes to function effectively as the first contact physician.

(ii) Objectives:

(A) Knowledge:

At the end of the course, the student shall be able to:

Diagnose common clinical disorders with special reference to infectious diseases, nutritional disorders, tropical and environmental diseases;

Outline various modes of management including drug therapeutics especially dosage, side effects, toxicity, interactions, indications and contra-indications;

Propose diagnostic and investigative procedures and ability to interpret them;

Provide first level management of acute emergencies promptly and efficiently and decide the timing and level of referral, if required;

Recognize geriatric disorders and their management.

(iii) Skills:

At the end of the course, the student shall be able to:

Develop clinical skills (history taking, clinical examination and other instruments of examination to diagnose various common medical disorders and emergencies;

Refer a patient to secondary and/or tertiary level of health care after having instituted primary care;

Perform simple routine investigations like hemogram, stool, urine, sputum and biological fluid examinations;

Assist the common bedside investigative procedures like pleural tap, lumber puncture, bone marrow aspiration/ biopsy and liver biopsy.

A course of systematic instruction in the principles and practice of medicine, including medical disease of infancy;

Lecture - demonstrations, seminars and conferences in clinical medicine during the 3 years shall run concurrently with other clinical subjects.;

Instructions in comprehensive medical care;

Instructions in applied anatomy and physiology and pathology throughout the period of clinical studies;

Instructions in dietetics, nutrition and principles of nursing Medical and in simple ward procedure e.g. should be imparted during clinical concurrently.

iv) Attitude:

a. The teaching and training in clinical medicine must aim at developing the attitude in students to apply the knowledge & skills he/she acquires for benefit and welfare of the patients.

b. It is necessary to develop in students a sense of responsibility towards holistic patient care & prognostic outcomes.

c. Students should develop behavioural skills and humanitarian approach while communicating with patients, as individuals, relatives, society at large & the co-professionals.

Curriculum for Theory Lecture series & Tutorials and LCD for General Medicine including Psychiatry, Tb. & Dermatology

TERM	DAY	TIME	LECTURES	TOPIC
4th	MON	8-9	20	Introduction to Medicine
5th	MON FRI	8-9 8-9	15 15	Infectious Diseases/Tropical diseases Cardiovascular System
6th	TUE THU MON TUE SAT	12-1 8-9 8-9 8-9 8-9	20 20 20 20 15	GIT, Liver, Pan. Chest + Miscellaneous TB Psychiatry Skin
7th	FRI THU FRI MON	8-9 12-1 2-4 2-3	15 15 30 20	Neurology Hematology/Haemato-oncology Tutorials Skin / STD
8th	TUE THU TUE	8-9 8-9 2-4	20 20 40	Endo + Misc + Genetics (3 Lectures.) Nephro. +Clinical Nutrition Tutorial Medicine, Skin, Tb, Psychiatry,

	WED	2-4	40	Tutorial
9th	TUE MON	12-1 2-4	15 30	LCD Medicine (10) Skin 1 Psychiatry (1) Tb(1) LCD Medicine (7)

The above timetable is general outline to guide the planning of curriculum at college level. However, flexibility may be exercised to the extent that there may be minor re-scheduling of course contents day-wise or term-wise. It must be ascertained that the course

Contents are covered fully and total hours allotted for the subjects are effectively implemented.

Note: - These are suggested time tables. Adjustments where required, depending upon the availability of time and facility, be made.

SYLLABUS:

General Instruction:

1. The Lectures Stated below shall cover knowledge about applied aspects of basic & allied sciences, practical approaches in the management of patients in the outdoor & indoor settings as well as their management in the community. Special emphasis shall be placed on preventive aspects, National Health Programs & dietetics & nutrition.)
2. During practical teaching & training in wards, OPD & field works proper emphasis should be given to common health problems in addition to other diseases. Emphasis should be given to learning of tacit knowledge & skills in diagnosis & interpretation of finding & Lab. data.

INTRODUCTION TO MEDICINE: 4 TH SEMESER

Lect.01. : History of Medicine.

Lect.2/3. : Concept & objectives of history taking. Diagnosis, Provisional Diagnosis,

Differential diagnosis.

Lect.04. : Symptomatology of Cardiovascular Diseases.

Lect.05. : Symptomatology of Respiratory diseases.

Lect.06. : Symptomatology in Nervous system.

Lect.07. : Symptomatology in Gastrointestinal and Hepatobiliary diseases.

Lect.08. : Approach towards a patient with Fever / Oedema.

Lect.09. : Approach towards a patient with anemia / jaundice.

Lect.10. : Approach towards a patient with Lymphadenopathy.

Lect.11. : Investigations (Non- Invasive)
X-rays, USG
C.T. ./ M.R.I. Scan
Secretions examinations
Peripheral smear

Lect.12.: Investigations (Invasive)
Bone marrow
F.N.A.C.
Liver biopsy
Lymph node biopsy
Endoscopies
Lumber puncture.

Lect.13/14.: Review of common diseases in India.

Lect.15/16,: Revision.

Lect.17.: Examination.

Lect.18/20: Buffer.

INFECTIOUS DISEASES: 5 TH SEMESTER

Lect.01 : Introduction.
Infections – types, Modes of Infection transmission, Incubation period Host defenses, Immunity & Immunization & Management including Prevention

Lect. 02: Viral hepatitis.
Lect.3/4/5: Tetanus/ Diphtheria

Lect.6/7: Malaria

Lect.08: Rabies

Lect.09: Typhoid fever

Lect.10/11: Gastroenteritis

Lect.12: Plague / Dengue

Lect.13/14: (HIV) Infection & AIDs.

Lect.15. Examination.

Note :- The course contents in above topics should also cover applied aspects in basic sciences like Anatomy, Physiology, Bio-Chemistry, Micro-Biology, Pharmacology, Pathology, FMT while giving training on Clinical features, investigations, Diagnosis, D/D treatment & prevention.

CARDIOVASCULAR SYSTEM: 5 TH SEMESTERS

Lect.01: Introduction

Functions / anatomy / physiology and its applications various terminologies used

Lect.2/3: Methods of evaluation

Non - invasive
Invasive

Lect.04: Arrhythmias

Concept & Classification
Presentation
Diagnosis
Pharmacotherapy in short

Lect.05: Cardiac arrest.

Lect.06: C.C.F.

Types
Presentations
Pathophysiology
Management

Lect.07: C.H.D.

Aetiology and classification
CHD in adults & its importance

Lect.08: Rheumatic fever

Lect.09: Presentation and haemodynamics of various Valvular lesions including investigations, Diagnosis, D/D treatment & Prevention.

Lect.10: Infective endocarditic

Lect.11/12: C.A.D, (Coronary artery disease)

Lect.13: Pericardial diseases and cardiomyopathy

Lect.14: Hypertension

Lect.15: Examination.

GASTROENTEROLOGY, HEPATOBILIARY SYSTEM & PANCREAS: 6 TH SEMESTER

Lect.01: Introduction to GIT
Oral Cavity
Ulcers
Bleeding
Pigmentation
Oral manifestation of systemic diseases

Lect.2/3: Oesophagus
Inflammation, Dysphasia

Lect.4/5: Stomach
Peptic ulcers
Aetiopathogenesis
Clinical features
Investigations
D/D and management
Acute and Chronic gastritis

Lect.6/7. Small and large intestine diseases
Secretions & functions
MAS Mal –absorption-syndrome
Tuberculosis of Abdomen
Lect.08: Ulcerative colitis & Crohn's disease

Lect.09: Liver.
Introduction
LFT & their interpretation

Lect.10/11: Hepatitis - Acute & Chronic

Lect.12/13: Cirrhosis of liver

Lect.14: Gall bladder diseases
Lect. 15/16: Pancreas
Functions
Investigations

Acute and Chronic pancreatitis
Manifestation and D/D & treatment.

Lect.17/18: Misc. & Revision.

Lect.19: Examination.

RESPIRATORY SYSTEM: 6 TH SEMESTER

Lect.01: Applied Anatomy and physiology of R.S.

Lect.02: P.F.T. (Pulmonary Function Testing)

Lect.03: Resp. Infection- Pneumonias.

Lect.04: Chronic bronchitis and emphysema

Lect.5/6: Bronchiectasis and lung abscess.

Lect.07: Bronchial asthma

Lect.08: Malignancies

Lect.09: Mediastinum and its disorders.

Lect.10: Pleural disease - Emphasis on pneumothorax

Lect.11: Pleural effusion.

Lect.12: Occupational lung disease. Its concept and short review

Lect.13: Revision - Fungal & Parasitic diseases

Lect. 14: Respiratory emergencies & Introduction to mechanical ventilators Collagen Vascular Disorders

Lect.1: Allergy - Concept & hypersensitity, Autoimmunity

Lect.2: Collagen disease.

Lect.3: Rheumatoid arthritis

Lect.4: Sero negative arthritis

Lect.5: Revision HIV , Alcohol related disease

Lect.6: Examination

TUBERCULOSIS: 6 TH SEMESTERS

Lect.01: History and introduction

Lect.2/3: Pathogenesis and pathology

Lect.04: Role of host related factors

Lect.05: Microbiology of AFB

Lect.06: Clinical features of pulmonary tuberculosis and its investigations

Lect.07: Anti – Tubercular drugs
Pharmacology & Schedules of treatment.

Lect.8/9: Resistant tuberculosis
DOTS
Prophylaxis - Drugs /BCG/ Tuberculin test.
HIV & TB.

Lect.10: Extra - pulmonary tuberculosis
Plural effusion
Empyema
Others

Lect.11/12: Revision

Lect.13: Examination

NEUROLOGY: 7 TH SEMESTERS

Lect.01: Introduction
Applied anatomy & physiology
History taking in neurology

Lect.02: Investigations

Lect.3/4: CVD (Cerebro-Vasular Disease)
Types & its differential diagnosis
Predisposing factors
Diagnosis and management

Lect.05: S.O.L. (Space Occupying Lesions)

Lect.06: Encephalitis and meningitis

Lect.07: Epilepsy

Lect.08: Cerebellar syndrome

Lect.09: Parkinsonism

Lect.10: Paripheral neuropathy

Lect.11: Muscle disorders in brief

Lect.12/13: Spinal cord disorders

Lect.14: CSF
Formation and absorption
Status in various disorders

Lect.15: Examination.

*Personality disorders, Anxiety and Mood disorders

*Drugs-Antipsychotic, anti depressants and Anxiolytics

*BLS And ACLS (Basic life support, Advanced cardiac life support)

HEMATOLOGY: 7 TH SEMESTER

Lect.01: Introduction
Cell line of hemopoisis
Stimulating factors
Physiology and Anatomy of RBCs.

Lect.02: Anemias
Introduction
Classification
Symptoms & signs in general
Basic investigations & its interpretation

Lect.03: Microcytic hypochromic anaemias
Fe Kinetics
C/F, investigations of Fe deficiency.
Treatment of Fe deficiency.
D/D - Sideroblastic / thallasemic.

Lect. 04: Macrocytic anaemias
Kinetics of B-12 and Folic acid
C/F, investigations and management of B-12 / FA deficiency.

Lect.05: Anaemias (continued)

Brief of Chronic infections and inflammation Hemolyticanaemias
Lect.06: Hemoglobinopathies
Lect.07: Hypoplastic / Aplastic anemia
Definition

Classification
Diagnosis and management

Lect. 08 Introduction to WBCs.
Agranulocytosis - Aetiology & its significance
Leukemias(AML, ALL, CML, CLL)
Lect.09: Management of leukemia

Lect.10: Lymphomas
Hodgkin's disease / NHL (Non-Hodgkin's lymphoma)
Lect.11: Approach to a patient with bleeding disorders
Recognition
Investigations
Physiology of Platelets
Therapy

Lect.12: Blood groups & Blood Transfusion & Component Therapy
Lect.13-14: Revision

Lect. 15: Examination.

*Dermatology- skin infections, Drug reactions, Photosensitivity

*Genetics- cloning of DNA, chromosomal disorders, mitochondrial defect

*Attitude and Communication skills, Medical ethics, professionalism

ENDOCRINOLOGY: 8 TH SEMESTER

Lect. 01: Introduction - Hormones
Concept
Types
Action
Endocrine system
General
Control

Lect.2/3: Pituitary
Anatomy
Regulation
Disorders of Ant. Pituitary
Acromegaly
A.G. Syndrome
Disorders of Post. Pituitary
Hypopituitarism

Lect.4/5: Thyroid

Anatomy

Regulation

Goiter

Hypothyroid state & hyperthyroid state

Classifications

Management

Lect.6/7: Adrenal gland

Anatomy

Regulation

Addison's & Cushing syndrome

Recognition

Investigations

Management

Pheocromocytoma

Lect.08: Vit. D. Metabolism. Ca. Metabolism and its relations to parathyroid Diagnosis & management of related disorders.

Lect.9/10: Diabetes Mellitus

Lect.11: FSH < H. Oestrogens Progesterone's

Significance

Disorders

Its recognition and diagnosis

Management

Lect.12: Multiple endocrine-syndrome and paraneoplastic syndrome Overview. Diabetes incipidus.

Miscellaneous

Lect.13/14: Poisoning

Suicidal / Homicidal / Accidental

Chemical / Biological / Corrosives / Drugs

Concepts of management

Optimum

Barbiturate

DDT

Organ phosphorus

Lect.15: Hyperpyrexia and Heat exhaustion

Aetiology

Pathophysiology

C / F. Types

Management
Preventive measures

Lect.16 : Electrical injury
Types
Manifestations
Management
Lightening

Lect.17: Shock
Types
Pathophysiology / Complications
Management

Lect.18/19: Revision

Lect.20: Examination

NEPHROLOGY, NUITRITION: 8 TH SEMESTER

NEPHROLOGY:

Lect.01: Anatomy & Physiology of Urinary system

Lect.02: R.F.T. (Renal Function Tests)

Lect.03: Acute Glomerulonephropathy

Lect.04: Chronic Glomerulonephropathy

Lect.05: Infections of urinary system.

Lect.06: Nephritic syndrome

Lect.07: Approach towards common problem

Proteinuria

Hematuria

Renal colic’s

Lect.08: Acute & Chronic renal failure

Lect.09: Dialysis - Diet - Drugs. In renal failure

Lect.10: Revision

Lect.11: Examination

Genetics (3 lectures)

Lect.1 : Introduction

Lect.2 : Common genetic disorders

Lect.3 : Application of Genetic Engineering in Medicine

NUTRITION:

Lect.11: Concepts of carbohydrate, proteins, fats, vitamins and minerals. Balanced diet.

Lect.12: Protein energy malnutrition.

Lect.13/14: Vitamin deficiency state
Scurvy / Beriberi / Pellagra / Vit.A

Lect.15: Obesity / Asthenia
Diagnosis
Complications and management

Lect.16: Revision

Lect.17: Examination.

*Emergency Psychiatry

*Disaster Psychiatry

* Infection- swine flu (H1N1) *Terrorism and clinical medicine *Medical problems in pregnancy *Introduction to Evidence based medicine (EBM)

Krishna Institute of Medical Sciences, Deemed to be University, Karad
Department of Surgery
Bachelor of Medicine & Surgery

Programme Name: MBBS **Course Name: General Surgery**
Code No-1101 **Course Code: 1101-42**

Surgery and allied specialties-

(i) GOAL:

The broad goal of the teaching of undergraduate students in Surgery is to produce graduates capable of delivering efficient first contact surgical care.

(ii) OBJECTIVES:

The departmental objectives, syllabus and skills to be developed in the department of surgery during undergraduate medical education are presented herewith. These are prepared taking into consideration of various aspects and institutional goals given below:

1. A medical student after graduation may have different avenues of his/her professional career and may work either as a first contact physician in a private, semi -private or public sector or may take up further specialization in surgery or other specialties.
2. He may have to work in different settings such as rural, semi-urban or urban which may have deficient or compromised facilities.
3. These are based on the various health services research data in our community.
4. These are also based on following institutional goals in general;

At the end of the teaching/ training the undergraduate will be able to:

- Diagnose and manage common health problems of the individual and the community appropriate to his/her position as a member of the health team at primary, secondary and tertiary levels.
- Be competent to practice curative, preventive, promotive and rehabilitative medicine and understand the concepts of primary health care.
- Understand the importance and implementation of the National Health Programmes in

the context of national priorities.

- Understand the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude required for professional responsibilities.
- Develop the ability for continued self-learning with a scientific attitude of mind and acquire further expertise in any chosen area of medicine.

a) KNOWLEDGE

At the end of the course, the student shall be able to:

1. Describe etiology, Pathophysiology, principles of diagnosis and management of common surgical problems including emergencies, in adults and children;
2. Define indications and methods for fluid and electrolyte replacement therapy including blood transfusion.
3. Define asepsis, disinfection and sterilization and recommend judicious use of antibiotics.
4. Describe common malignancies in the country and their management including prevention.
5. Enumerate different types of anesthetic agents, their indications, mode of administration, contraindications and side effects

b) <u>SKILLS.</u>

At the end of the course, the student should be able to

1. Diagnose common surgical conditions both acute and chronic, in adult and children.
2. Plan various laboratory tests for surgical conditions and interpret the results;
3. Identify and manage patients of hemorrhagicsepticemia and other types of shock.
4. Be able to maintain patent air-way and resuscitate:
    A) A critically injured patient.
    B) Patient with cardio-respiratory failure;
    C) A drowning case.
5. Monitor patients of head, chest, spinal and abdominal injuries, both in adults and

children

6. Provide primary care for a patient of burns;
7. Acquire principles of operative surgery, including pre-operative, operative and post operative care and monitoring;
8. Treat open wounds including preventive measures against tetanus and gas gangrene.
9. Diagnose neonatal and pediatric surgical emergencies and provide sound primary care before referring the patient to secondary/territory centers;
10. Identify congenital anomalies and refer them for appropriate management

In addition to the skills referred above in items (1) to (10), he shall have observed/assisted/performed the following:

i. Incision and drainage of abscess;
ii. Debridement and suturing open wound;
iii. Venesection;
iv. Excision of simple cyst and tumours.
v. Biopsy and surface malignancy
vi. Catheterization and nasogastric intubation;
vii. Circumcision
viii. Meatotomy;
ix. Vasectomy;
x. Peritoneal and pleural aspirations;
xi. Diagnostic proctoscopy;
xii. Hydrocoele operation;
xiii. Endotracheal intubation
xiv. Tracheotomy and cricothyroidetomy;
xv. Chest tube insertion.

HUMAN VALUES, AND ETHICAL PRACTICE

- Adopt ethical principles in all aspects of his clinical practice. Professional honesty and integrity are to be fostered. Surgical care is to be delivered irrespective of the social status, caste, creed or religion of the patient.

- Develop communication skills, in particular the skill to explain various options available in management
- Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues and specialist in the field when needed.
- Respect patient's rights and privileges including patient's right to information and right to seek a second opinion

C) <u>INTEGRATION</u>

The undergraduate teaching in surgery shall be integrated at various stages with different pre and para and other clinical departments.

LEARNING METHODS

Lectures, Tutorials bedside clinics and lecture cum demonstrations

Distribution of Teaching hours -

- Lectures - 160 hours
- Tutorials and revision - 140 hours
- Bedside clinics - 468 hours five clinical postings totaling 26 weeks including Anesthesiology
- Clinical postings in General Surgery -

  3rd Semester - 6 weeks

  5th Semester - 4 weeks

  7th Semester - 4 weeks

  8th Semester - 6 weeks

  9th Semester - 6 weeks

Sequential organization of contents and their division -

GENERAL SURGERY LECTURES

3rd Term

General Surgery : Part I 16 Lectures

4th Term 1 modules

- Module l

  Vascular Surgery : 8 Lectures 16 Lectures

  Tropical Surgery : 4 Lectures

  Gen. Surgery Remaining: 4 Lectures

6th Term 2 modules

- Module 2 16 Lectures

  Head and Neck surgery

  Endocrine surgery

- Module 3

  Breast surgery : 4

  Plastic & Reconstructive Surgery: 6

  Neurosurgery : 6 16 Lectures

7th Term: 3 modules

- Module 1

  Cardio Thoracic surgery : 8

  Pediatric surgery : 8 16 lectures

- Module 2

  Liver

  Spleen 16 Lectures

  Pancreas

  Biliary Tract

  Portal Hypertension.

- Module 3

Upper Gastro intestinal Tract + Peritoneum 16 Lectures

8th Term **4 modules**

- Module (1)

  Lower G.I. tract 16 Lectures

  Abdominal wall,

  Incisional Hernia

- Module (2)

  Upper GUT 16 Lectures

  Organ transplantation

- Module (3)

  Lower GUT 16 Lectures

  Hernia, Hydrocoele

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160 Hours

9th Term

Revision Lectures/ tutorials/ lecture cum demonstrations 48

208

TUTORIALS

6TH Term	Surgical pathology	32
8th Term	Operative Surgery + Instruments	32
9th Term	Imaging sciences-	
	Interpretation of Investigations	28

300

Course contents- General Surgery - including pediatric surgery

COURSE CONTENTS

I. A. GENERAL PRINCIPLES

1. Wound healing and management, scars: Hypertrophic scar and keloid; First aid management of severely injured.
2. Asepsis, antisepsis, sterilization.
3. Surgical sutures, knots, drains, bandages and splints.
4. Surgical infections and rational use of antibiotics: Causes of infection, prevention of infection, common organisms causing infection.
5. Boils, cellulites, abscess, necrotizing fasciitis.
6. Tetanus and Gas gangrene: Prevention of Tetanus and Gas Gangrene.
7. Chronic specific infections: Tuberculosis, Filariasis, and Leprosy.
8. Antibiotic therapy.
9. Hospital infection.
10. AIDS and Hepatitis B; Occupational hazards and prevention.
11. Day Care Surgery
12. Nutrition and Fluid therapy

I.B.

1. Mechanism and management of missile, blast and gunshot injuries.
2. Surgical aspects of diabetes mellitus.
3. Bites and stings.
4. Organ transplantation - Basic principles.
5. Nutritional support to surgical patients.

II. **RESUSCITATION.**

1. Fluid electrolyte balance.

2. Shock: Aetiology, Pathophysiology and management.
3. Blood transfusion: Indication and hazards.
4. Common postoperative complications.
5. BLS and ACLs (Basic life support, Advanced cardiac life support

III. **COMMON SKIN AND SUBCUTANEOUS CONDITIONS.**

1. Sebaceous cyst, dermoid cyst, lipoma, haemangioma, neurofibroma, premalignant conditions of the skin, basal cell carcinoma, naevi and malignant melanoma.
2. Sinus and fistulae. Pressure sores; prevention and management.
3. Tissue Engineering and Regeneration

IV. **ARTERIAL DISORDERS.**

1. Acute arterial obstruction: diagnosis and initial management; types of gangrene; diagnosis of chronic arterial insufficiency with emphasis on Burger's disease, athreosclerosis and crush injuries.
2. Investigations in cases of arterial obstruction. Amputations;
3. Vascular injuries: basic principles of management.
4. Basic Surgical skills and Anastamosis

V. **VENOUS DISORDERS.**

1. Varicose veins: diagnosis and management; deep venous thrombosis: diagnosis, prevention, principles of therapy; thrombophlebitis.
2. Tropical Infections and Infestation

VI. **LYMPHATICS AND LYMPH NODES.**

1. Diagnosis and principles of management of lymphangitis, lymph edema, acute and chronic lymphadenitis; cold abscess, lymphomas, surgical manifestations of filariasis.
2. Principles of Oncology

VII. **BURNS.**

1. Causes, prevention and first aid management; Pathophysiology; assessment of depth and surface area, fluid resuscitation; skin cover; prevention of contractures.
2. Human Factors, Patient Safety and Quality Improvement

VIII. **SCALP, SKULL AND BRAIN.**

1. Wounds of scalp and its management: recognition, diagnosis and monitoring of patients with head injury including unconsciousness; Glasgow coma scale recognition of acute / chronic cerebral compression.

IX. **A. ORAL CAVITY, JAWS, SALIVARY GLANDS.**

1. Oral cavity:

   I) Cleft lip and palate; Leukoplakia; retention cyst; ulcers of the tongue.

   II) Features, diagnosis and basic principles of management of carcinoma lip, buccal mucosa and tongue, prevention and staging of oral carcinomas.

2. Salivary glands: I) Acute sialoadenitis, neoplasm: diagnosis and principles of treatment.

IX. **B**. Epulis, cysts and tumors of jaw: Maxillofacial injuries; salivary fistulae

X. **A. NECK.**

1. Bronchial cyst; cystic hydromel.
2. Cervical lymphadenitis: Non-specific and specific, tuberculosis of lymph nodes, secondary's of neck.

X. **B.** Thoracic outlet syndrome: diagnosis.

XI. **A. THYROID GLAND**

1. Thyroid: Surgical anatomy, physiology, investigations of thyroid disorders; types, clinical features, diagnosis and principles of management of goiter, hyrotoxicosis and malignancy, hypoglossal cyst and fistula.

XI. **B.** Thyroiditis, Hypothyroidism.

XII. **PARATHYROID AND ADRENAL GLANDS.**

1. Clinical features and diagnosis of hyperparathyroidism, adrenal hyperfunction/ hypofunction.

XIII. **BREAST.**

1. Surgical anatomy; nipple discharge; acute mastitis, breast abscess; mammary dysplasia; gynaecomastia; fibro adenomas.

2. Assessment and investigations of a breast lump.
3. Cancer breast: diagnosis, staging, principles of management.

XIV. **THORAX.**

1. Recognition and treatment of pneumothorax, haemothorax, pulmonary embolism: Prevention/ recognition and treatment, flail chest; Stove in chest; Postoperative pulmonary complications.

XIV. **B.** Principles of management of pyothorax; cancer lung.

XV. **HEART AND PERICARDIUM.**

1. Cardiac tamponade
2. Scope of cardiac surgery.

XVI. **OESOPHAGUS.**

1. Dysphagia: Causes, investigations and principles of management.
2. Cancer oesophagus: Principles of management.

XVII. **STOMACH AND DUODENUM.**

1. Anatomy; Physiology, Congenital hypertrophic pyloric stenos is; aetiopathogenesis, diagnosis and management of peptic ulcer, cancer stomach; upper gastrointestinal haemorrrhage with special reference to bleeding varies and duodenal ulcer.

XVIII. **A. LIVER**

1. Clinical features, diagnosis and principles of management of: Amoebic liver abscess, hydrated cyst and portal hypertension. Liver trauma.

XVIII. **B.** Surgical anatomy; primary and secondary neoplasms of liver.

XIX. **SPLEEN**

1. Splenomegaly: causes, investigations and indications for splenectomy: splenic injury.

XX. **GALL BLADDER AND BILE DUCTS**

1. Anatomy, physiology and investigations of biliary tree; clinical features, diagnosis, complications and principles of management of cholelithiasis and cholecystitis; obstructive jaundice.

XX. **B.** Carcinoma of gall bladder, choledochal cyst.

XXI. **PANCREAS.**

1. Acute pancreatitis: Clinical features, diagnosis, complications and management.
2. Chronic pancreatitis, pancreatic tumours.

XXII. **PERITONEUM, OMENTUM, MESENTERY AND RETROPERITONEAL SPACE.**

1. Peritonitis: Causes, recognition and principles of management; intraperitoneal abscess.

XXII **B.** Laparoscopy and laparoscopic surgery.

XXIII. **A. SMALL AND LARGE INTESTINES**

1. Diagnosis and principles of treatment of: Intestinal amoebiasis, tuberculosis of intestine, carcinoma colon; lower gastrointestinal haemorrrhage; Enteric fever, parasitic infestations.

XXIII. **B.** Ulcerative colitis, premalignant conditions of large bowel.

XXIV. **INTESTINAL OBSTRUCTION.**

1. Types, aetiology, diagnosis and principles of management; paralytic ileus.

XXV. **ACUTE ABDOMEN.**

1. Causes, approach, diagnosis and principles of management.

XXVI. **APPENDIX**

1. Diagnosis and management of acute appendicitis, appendicular lump and abscess.

XXVII. **RECTUM.**

1. Carcinoma rectum: diagnosis, clinical features and principles of management; indications and management of colostomy.

XXVII. **B.** Management of carcinoma rectum; prolapsed of rectum.

XXVIII. **ANAL CANAL.**

1. Surgical anatomy. Clinical features and management of: fissure, fistula in ano, perianal and ischiorectal abscess and hemorrhoids; Diagnosis and referral of anorectal anomalies.

XXVIII. **B.** Anal carcinoma.

XXIX. **A. HERNIAS.**

1. Clinical features, diagnosis, complications and principles of management of : Umbilical, Inguinal, epigastria and femoral hernia.
2. Omphalitis.

XXIX .**B.** Umbilical fistulae, Burst abdomen, ventral hernia.

XXX. **GENITO- URINARY SYSTEM.**

1. Symptoms and investigations of the urinary tract.

XXXI. **KIDNEY AND URETER**

1. Investigations of renal mass; diagnosis and principles of management of urolithiasis, hydronephrosis, pyonephrosis, and perinephric abscess, congenital anomalies of kidney & Ureter and renal tumours.
2. Renal tuberculosis.

XXXII. **URINARY BLADDER.**

1. Causes, diagnosis and principles of management of haematuria, anuria and acute retention of urine.

XXXIII. **A. PROSTATE AND SEMINAL VESICLES.**

1. Benign prostatic hyperplasia: diagnosis and management.

XXXIII. **B.** Carcinoma prostate.

XXXIV. **URETHRA AND PENIS**

1. Diagnosis and principles of management of Phimosis, paraphimosis and carcinoma penis.
2. Principles of management of urethral injuries.
3. Urethral strictures.

XXXV. **TESTES AND SCROTUM**

1. Diagnosis and principles of treatment of undecided testis; torsion testis; Hydrocoele, hematocoele, pyocoele, varicocele, epididymo-orchitis and testicular tumours.

XXXVI **PAEDIATRIC SURGERY**

1. Oesophageal artesian and Intestinal artesian
2. Anorectal malformations

3. Constipation in children: Hirschsprung's disease, Acquired megacolon,
4. Congenital diaphragmatic hernia
5. Extrophy, Epispadias complex and hypospadias
6. Spinal diastrophism and Hydrocephalus
7. Urinary tract infections in children- Vesicoureteral reflux, posterior urethral Valves, Vesico Ureteral Junction obstruction/Duplex ureter, Obstructive uropathy in Children : Hydronephrosis, Hydroureteronephrosis
8. Testicular Maldescent
9. Umbilical Hernia, Exompholos: Major/minor
10. Wilm's Tumours: Neuroblastoma, Ganglionioneuloblestoma, Ganglioneuroma, Endo-dermal Sinus Tumours.
11. Hamartomas in Children: Lymphangioma and Cystic hygroma, Haemangioma. Biliary Atresia and Surgical jaundice

Suggested lecture program

Distribution of syllabus in respective semesters

This is suggested programme and can vary at institute

Total 300 hours of teaching has to be done in General Surgery including Tutorials

Details of syllabus is given separately below after distribution as per semester

4 th Semester : **16 Lectures**

1) Introduction to Surgery
2) Body response to injury
3) Wound and wound healing
4) Acute infection, Boils, Carbuncle etc
5) Chronic infections
6) Tetanus and Gas gangrene
7) Neoplasm General Consideration

8) Surgical Nutrition
9) Pre operative and Post operative Care
10) Sepsis and Anti Spesis
11) Burns
12) Shock
13) Fluid and Electrolyte Balance
14) Monitoring of surgical Patients
15) Hemostasis and Blood transfusion.

6th Term 3 modules

Module I

General surgery

a. Polytrauma
b. Missiles and their effects & blast injuries
c. Management of war wounds
d. Surgical diseases skin conditions
e. Minimally invasive surgery
f. Principal of Radiotherapy
g. OT Techniques
h. AIDS in surgery
i. Foot including Diabetic Foot
j. Hand and hand infection

Vascular Surgery

* **ARTERIAL DISORDERS.**

1. Acute arterial obstruction: diagnosis and initial management; types of gangrene ; diagnosis of chronic arterial insufficiency with emphasis on Burger's disease, athreosclerosis and crush injuries.
2. Investigations in cases of arterial obstruction. Amputations;
3. Vascular injuries : basic principles of management.

4. Surgically correctable Hypertension

*** VENOUS DISORDERS.**

1.Varicose veins: diagnosis and management; deep venous thrombosis :

diagnosis, prevention, principles of therapy; thrombophlebitis.

LYMPHATICS AND LYMPH NODES.

Diagnosis and principles of management of lymphangitis, lymph edema, acute and chronic lymphadenitis; cold abscess, lymphomas, surgical manifestations of filariasis.

- **Module 2**

HEAD, FACE, NECK **8 lectures**

1. ORAL CAVITY, JAWS, SALIVARY GLANDS.

2. Oral cavity :
   I) Cleft lip and palate; Leukoplakia; retention cyst; ulcers of the tongue.
   II) Features, diagnosis and basic principles of management of carcinoma lip, buccal mucosa and tongue, prevention and staging of oral carcinomas.
3. Salivary glands :
   I) Acute sialoadenitis, neoplasm : diagnosis and principles of treatment
   II). Salivary fistulae

2. Epulis, cysts and tumours of jaw: maxilofacial injuries

3. NECK.

1. Branchial cyst; cystic hygroma.
2. Cervical lymphadenitis : Non specific and specific,
3. Tuberculosis of lymphnodes, secondaries of neck.

4. Thoracic outlet syndrome: diagnosis.

2. ENDOCRINE SURGERY **8 lectures**

A. THYROID GLAND

I) Thyroid: Surgical anatomy, physiology, investigations of thyroid disorders; types, clinical features, diagnosis and principles of management of goiter, thyrotoxicosis and malignancy, hypoglossal cyst and fistula.

ii) Thyroiditis, Hypothyroidism.

B. PARATHYROID AND ADRENAL GLANDS.

- Clinical features and diagnosis of hyperparathyroidism,
- Tumors of the adrenal gland
- Adrenal hyper function/ hypo function

C. Diseases of thymus

Module 3

1. NEURO-SURGERY
   6 lectures
2. Head injury
3. Intracranial tumors & other ICSOL
4. Congenital anomalies of brain & spinal cord
5. Surgery of peripheral nerves & diseases

2. Surgery of Breast5lectures

1. Surgical anatomy; nipple discharge; acute mastitis, breast abscess; mammary dysplasia; gynaecomastia; fibro adenomas.
2. Assessment and investigations of a breast lump.
3. Cancer breast : diagnosis, staging, principles of management

3. PLASTIC & RECONSTRUCTIVE SURGERY **5 lectures**

1. Management of burns

2. Skin grafting including flaps
3. Injuries of the hand
4. Infections of the hand

7 th Semester

- **Module (1)**

Cardio Thoracic surgery	8	
Paediatric surgery	8	**16 lectures**

- **CARDIO-THORACIC SURGERY**

1. Injuries of the chest
2. Tumors of the lung & bronchial tree
3. congenital heart disease
4. Acquired heart disease
5. Surgery of ischemic heart disease
6. Diseases of pericardium
7. Cardiac arrest

Pediatric Surgery

1. Oesophageal artesian and Intestinal atresia
2. Anorectic malformations
3. Constipation in children: Hirschsprung's disease, Acquired mega colon,
4. Congenital diaphragmatic hernia
5. Extrophy, Epispadias complex and hypospadias
6. Spinal diastrophism and Hydrocephalus
7. Urinary tract infections in children- Vesicoureteral reflux, posterior urethral Valves, Vesico Ureteral Junction obstruction/Duplex ureter, Obstructive uropathy in Children : Hydronephrosis, Hydroureteronephrosis
8. Testicular Maldescent
9. Umbilical Hernia, Exompholos : Major/minor

10. Wilm's Tumours: Neuroblastoma, Ganglionioneuloblestoma, Ganglioneuroma, Endo-dermal Sinus Tumours.
11. Hamartomas in Children: Lymphangioma and Cystic hygroma, Haemangioma.
12. Biliary Atresia and Surgical jaundice

Module 2

- **TROPICAL SURGERY**
  1. Surgical consideration in Amoebiasis& Enteric fever
  2. Filariasis, Dracontiasis&Ascariasis
  3. Hydatid disease
  4. Leprosy, Madura foot, Tropical ulcer Actionomycosis
- Hepatobiliary Pancreatic surgery + Spleen

A. LIVER

- Clinical features, diagnosis and principles of management of: Amoebic liver abscess, Liver trauma
- Surgical anatomy; primary and secondary neoplasms of liver.

SPLEEN

- Splenomegaly: causes, investigations and indications for splenectomy: splenic injury.

GALL BLADDER AND BILE DUCTS

- Anatomy, physiology and investigations of biliary tree; clinical features, diagnosis, complications and principles of management of cholelithiasis and cholecystitis; obstructive jaundice.
- Carcinoma of gall bladder, choledochal cyst.

PANCREAS.

- Acute pancreatitis: Clinical features, diagnosis, complications and management.
- Chronic pancreatitis, pancreatic tumours.

PORTAL HYPERTENSION

- Clinical presentation, Investigation and management

Module 3

Upper gastrointestinal Tract and Peritoneum

- **PERITONEUM, OMENTUM, MESENTERY AND RETROPERITONEAL SPACE**.
    1. Peritonitis: Causes, recognition and principles of management;
    2. Intraperitoneal abscess
- **OESOPHAGUS.**
    1. Dysphagia: Causes, investigations and principles of management.
    2. Cancer oesophagus: Principles of management.

- **STOMACH AND DUODENUM.**
    1. Anatomy; Physiology, Congenital hypertrophic pyloric stenosis; aetiopathogenesis, diagnosis and management of peptic ulcer, cancer stomach; upper gastrointestinal haemorrhage with special reference to bleeding varices and duodenal ulcer.
- **SMALL INTESTINES**
    2. Diagnosis and principles of treatment of, tuberculosis of intestine,

8th Semester

Module 1

Lower gastrointestinal Tract and abdominal wall

- ACUTE ABDOMEN
- INTESTINAL OBSTRUCTION.

Types, aetiology, diagnosis and principles of management; paralytic ileus

Aetiology, Clinical Features. Invesigations and management

- ABDOMINAL WALL

1. Features, diagnosis, complications and principles of management of : Umbilical, epigastric hernia., incisional; hernia ventral hernia

- LARGE INTESTINES

Ulcerative colitis, premalignant conditions of large bowel carcinoma colon; lower gastrointestinal haemorrhage;, parasitic infestations.

- **APPENDIX**

Diagnosis and management of acute appendicitis,

Appendicular lump and abscess.

- **RECTUM.**

Carcinoma rectum: diagnosis, clinical features and principles of management; indications and Management of colostomy. Management of carcinoma rectum; Prolapse of rectum.

- **ANAL CANAL**

Surgical anatomy. Clinical features and management of: fissure,

Fistula in ano, perianal and ischiorectal abscess and haemorrhoids;

Diagnosis and referral of anorectal anomalies.

Anal carcinoma.

- **Umbilicus and Abdominal wall**

Umbilical fistulae, Burst abdomen, ventral hernia.

Module 2

Upper genito-urinary Tract and Organ Transplantation

- GENITO- URINARY SYSTEM.
- Symptoms and investigations of the urinary tract.
- KIDNEY AND URETER

Anatomy and Embryology of Kidney and ureter

Congenital anomalies of kidney & Ureter

Investigations of renal mass;

Diagnosis and principles of management of urolithiasis,

Hydronephrosis, pyonephrosis, perinephric abscess,

Renal tumours.

Renal tuberculosis.

Module 3

Upper genito-urinary Tract and Hernia

- URINARY BLADDER.

Causes, diagnosis and principles of management of haematuria,

Anuria and Acute retention of urine.

- PROSTATE AND SEMINAL VESICLES.

Benign prostatic hyperplasia: diagnosis and management.

Carcinoma prostate.

- URETHRA AND PENIS

Diagnosis and principles of management of Phimosis, paraphimosis and

Principles of management of urethral injuries.

Urethral strictures.

Carcinoma penis

- TESTES AND SCROTUM.

  Diagnosis and principles of treatment of undescended testis; torsion testis;

  Hydrocoele, hematocoele, pyocoele,

  Varicocele, epididymo-orchitis and

  Testicular tumours

- HERNIAS.

- Clinical features, diagnosis, complications and principles of management of: Umbilical, Inguinal, epigastric and femoral hernia.

RECOMMENDED BOOKS FOR GENERAL SURGERY

TEXT BOOKS:

1. Charles V. Mann, R.C.G. Russel, Norman S., Williams, Bailey and Love's Short Practice of Surgery, 23rd Edition, 2000 Chapman and Hall.
2. K. Das: Clinical Methods in Surgery, 8th Edition, 1968, Suhas Kumar Dhar, Calcutta.
3. JSP Lumley: Hamilton Bailey's Physical Signs 18thEdn Butterworth/Heinemann. 1997,
4. Somen Das ; A Practical Guide to Operative Surgery, 4th Edition, 1999, s. Das, Calcutta

REFERENCE TEXT BOOKS

1. James Kyle: Pye's Surgical handicraft, Indian edition, K.M. Varghese Company David C.
2. Sabiston; Text Book of surgery: The Biological basis of Modern Surgical Practice, 15th Edition, 1971, W.B. Saunders.
3. Seymour I. Schwartz, G. Tom Shines, Frank C. Spencer, Wendy Cowles Husser: Principles of Surgery, Vol. 1 & 2, 7th Edition, 1999, McGraw Hill
4. R.F. Rintoul: Farqharson's Text Book of Operative Surgery, 8th Edition, 1995, Churchill Livingstone.
5. Sir Charles Illingworth, Bruce m. Dick: A Text Book of Surgical Pathology, 12th Edition, 2979, Churchill Livingstone.

6. R.W.H. McMinn: Last's Anatomy: Regional and Applied; 10th Edition, 1999, Churchill Livingstone.
7. ASI Text Book of Surgery Ed. A Hai 1st Edition 2000.

KRISHNA INSTITUTE OF MEDICAL SCIENCES, KARAD.

Programme name: M.B.B.S.
Programme code: 1101
Course name: Obstetrics & Gynecology
Course code: 1101-43

These guidelines are based on MCI recommendations Teaching has to be done keeping in mind the goals and objectives to be achieved by medical student.

Goal:

The broad goal of the teaching of undergraduate students in Obstetrics and Gynecology is that he/she shall acquire understanding of anatomy, physiology and Pathophysiology of the reproductive system & gain the ability to optimally manage common conditions affecting it.

Objectives:

Knowledge

At the end of the course, the student shall be able to:

- Outline the anatomy, physiology and Pathophysiology of the reproductive system and the common conditions affecting it.
- Detect normal pregnancy, labourpuerperium and manage the problems he/she is likely to encounter therein,
- List the leading causes of maternal prenatal morbidity and mortality.
- Understand the principles of contraception and various techniques employed, methods of medical termination of pregnancy, sterilization and their complications.
- Identify the use, abuse and side effects of drugs in pregnancy, pre-menopausal and post-menopausal periods;
- Describe the national programme of maternal and child health and family welfare and their implementation at various levels.
- Identify common gynecological diseases and describe principles of their management.
- State the indications, techniques and complications of surgeries like Caesarian Section, laparotomy, abdominal and vaginal hysterectomy, Fothergill's operation and vacuum aspiration for Medical Termination of Pregnancy (MTP)

Course Outcome:

At the end of course the student shall be able to:

- Outline the Anatomy, Physiology and Pathophysiology of the reproductive system and the common conditions affecting it.
- Detect normal pregnancy, labor puerperium and manage the problems he/she is likely to encounter therein.
- List the leading causes of maternal prenatal morbidity and mortality.

- Understand the principles of contraception and various techniques employed, methods of medical termination of pregnancy, sterilization and their complications.
- Identify the use, abuse and side effects of drugs in pregnancy, pre-menopausal and post-menopausal periods.
- Describe the national programme of maternal and child health and family welfare and their implementation at various levels.
- Identify common gynecological diseases and describe principles of their management.
- State the indications, techniques and complications of surgeries like Caesarian Section, laparotomy, abdominal and vaginal hysterectomy, Fothergill's operation and vacuum aspiration for Medical Termination of Pregnancy (MTP).
- Examine a pregnant woman; recognize high-risk pregnancies AND make appropriate referrals.
- Conduct a normal delivery, recognize complications and provide postnatal care.
- Resuscitate the newborn and recognize the congenital anomalies.
- Advise a couple on the use of various available contraceptive devices and assist in insertion and removal of intra-uterine contraceptive devices.
- Perform pelvic examination, diagnose and manage common gynecological problems including early detection of genital malignancies.
- Make a vaginal cytological smear, perform a post coital test and wet vaginal smear examination for Trichomonasvaginalis, Moniliasis and gram stain for gonorrhea.
- Interpretation of data of investigations like biochemical, histopathological, radiological ultrasound etc.
- The student shall be able to integrate clinical skills with other disciplines and bring about coordination of family welfare programme for the national goal of population control.

Skills:

At the end of the course, the student shall be able to:

1. Examine a pregnant woman; recognize high-risk pregnancies AND make appropriate referrals.
2. Conduct a normal delivery, recognize complications and provide postnatal care;
3. Resuscitate the newborn and recognize the congenital anomalies
4. Advise a couple on the use of various available contraceptive devices and assist in insertion and removal of intra-uterine contraceptive devices.
5. Perform pelvic examination, diagnose and manage common gynecological problems including early detection of genital malignancies.
6. Make a vaginal cytological smear; perform a post coital test and wet vaginal smear examination for Trichomonasvaginalis, Moniliasis and gram stain for gonorrhoea.

7. Interpretation of data of investigations like biochemical, histopathological, radiological ultrasound etc.

Integration:

The student shall be able to integrate clinical skills with other disciplines and bring about coordination of family welfare programme for the national goal of population control.

General Guidelines for Training:

1. Attendance of a maternity hospital or the maternity wards of a general hospital including -
   i. Antenatal care the management of the puerperium
   ii. Minimum period of 5 months in-patient and outpatient training including family welfare planning.
2. Of this period of clinical instruction, not less than one month shall be spent as a resident pupil in a maternity ward of a general hospital.
3. During this period, the student shall conduct at least 10 cases of labour under adequate supervision and assist 10 other cases.
4. A certificate showing the number of cases of labor attended by the student in the maternity hospital and/or patient homes respectively, shall be signed by a responsible medical officer on the staff of the hospital and shall state:

(a) That the student has been present during the course of labor and personally conducted each case, making the necessary abdominal and other examinations under the supervision of the certifying officer who shall describe his official position.

(b) That satisfactory written histories of the cases conducted including wherever possible antenatal and postnatal observations, were presented by the student and initialed by the supervising officer

Learning Methods

Lectures, Tutorials bedside clinics and lecture cum demonstrations

Distribution of Teaching hours -

- Lectures - 130 hours
- Tutorials and revision - 170 hours
- Bedside clinics - 468 hours
- Newer teaching learning methods- PBL (Problem Based Learning), One minutes preceptor ship.

Didactic Lectures

Semester	Hours/Week	Total
4	1/ Week	17
6	3/ Week	48
7	3/ Week	48
8	1/ Week	17
Total		130

Clinical Demonstrations, Practical Demonstrations, Seminars Etc.

Semester	Hours/Week	Total
8	4/ Week	68
9	6/ Week	102
Total		170
Total Teaching Hours		300

Suggested lecture program
Distribution of syllabus in respective semesters

This is suggested programme and can vary at institute.

Total 300 hours of teaching has to be done in OB GY including Tutorials.

A detail of syllabus is given separately below after distribution as per semester.

4th Semester

Obstetrics

1. Applied anatomy of female genital tract.
2. Development of genital tract
3. Physiology of menstruation
4. Puberty and menopause
5. Physiology of ovulation / conception / implantation.
6. Early development of human embryo.
7. Structure, function and anomalies of placenta.
8. Physiological changes during pregnancy / diagnosis of pregnancy.
9. Antenatal care, nutrition in pregnancy, detection of high-risk pregnancy.
10. Normal labour - Physiology, mechanism, clinical course and management, pain relief in labour.
11. Normal puerperium and breast-feeding.
12. Examination and care of newborn.
13. Contraception - Introduction and basic principles
14. Maternal mortality and morbidity, prenatal mortality and morbidity. National health programme - safe-motherhood, reproductive and child health, social obstetrics.
15. Nutrition and Exercise for women's Health.

6th Semester

Gynecology & Family Planning

Gynecology

1. Development of genital tract, congenital anomalies and clinical significance, Chromosomal abnormalities and intersex.
2. Physiology of Menstruation, Menstrual abnormalities - Amenorrhoea, Dysmenorrheal, Abnormal Uterine Bleeding, DUB.
3. Puberty and its disorders, Adolescent Gynecological problems.
4. Menopause & H R T.
5. Infections of genital tract, Leucorrhoea, Pruritus vulvae, Vaginitis, Cervicitis, PID, Genital TB, Sexually transmitted infections including HIV infection.
6. Benign & Malignant tumors of the genital tract. Leiomyoma, carcinoma cervix, carcinomaendometrium, chorio carcinoma, ovarian tumors. Benign & Malignant Lesions of Vulva.
7. Radiotherapy & Chemotherapy in Gynecology.
8. Other gynecological disorders - Adenomyosis, Endometriosis
9. Genital Prolapsed, Genital Tract displacement,
10. Urinary disorders in Gynecology, Perineal tears, Genital Fistulae, RVF & VVF.
11. Geriatric care

Family Planning

1. Demography and population Dynamics.
2. Contraception - Temporary methods.

Permanent methods.

1. MTP Act and procedures of MTP in first & second trimester.
2. Emergency contraception. :
3. Comprehensive abortion care

7th Semester

Obstetrics & Newborn

1. Complications in early pregnancy.
   Hyperemesis gravidarum / abortion / ectopic pregnancy/gestational trophoblastic disease.
2. Obstetrical complications during pregnancy.
   APH - Accidental hemorrhage.Placentapraevia.
3. Poly hydramnios / oligohydramnios, multifetal pregnancy.
4. Medical disorders in pregnancy.
   Anemia, Heart disease.Hypertensive disorder, PIH and Eclampsia, Diabetes, jaundice, pulmonary disease in pregnancy.
5. Infections in pregnancy
   Urinary tract diseases, sexually transmitted infections including HIV, malaria, TORCH etc.
6. Gynaecological and surgical conditions in pregnancy.
   Fibroid with pregnancy, ovarian tumours, acute abdomen, genital prolapse.
7. High risk pregnancy, pre-term labour, post term pregnancy, IUGR, IUFD, pregnancy wastages, Rh incompatibility, post caesarean pregnancy.
8. Induction of labour.
9. Abnormal position & presentation: Occipital posterior, Breech, Transverse, Face & Brow, Compound, Cord Presentation and prolapsed.
10. Abnormal labour - abnormal uterine action, CPD.
    Obstructed labour, uterine rupture.
11. Third stage complications - Retained placenta, PPH, Shock, Uterine inversion, Fluid Embolism.
12. Puerperal Sepsis and Other Complications in puerperium.
13. Evaluation of Foetal Health during pregnancy and labour.
14. Drugs used in obstetric practice.
15. Operative procedures in Obstetrics: Caesarean Section, Instrumental Vaginal Delivery. Forceps, Vacuum,
16. Maternal Mortality and morbidity, prenatal mortality and morbidity. National program - safe motherhood, reproductive and child health, Social Obstetrics.
17. R. C. H. (Reproductive Child Health) Program
18. Stem Cells
19. Umbilical cord banking
20. PCPNDT (Pre conception and Pre Natal Diagnostic Techniques) Act.
21. HIV infection – Total care that is Anti Partum, Intra Partum, Post Partum care, Post exposure Prophylaxis, contraception in HIV infected patients.

22. Patient Safety
23. Obstetric drills in labour room- PPH, Eclampsia etc.
24. Post partum intrauterine contraceptive devices.
25. Changing concepts in abnormal uterine bleeding – PALM-COEIN

    Classification.
26. POPQ- Pelvic Organ Prolapse Quantification
27. Prenatal Screening & Diagnosis

New Born:

1. Examination and care of new born & low birth weight babies.
2. Asphyxia and neonatal resuscitation.
3. Diagnosis of early neonatal problems.
4. Birth injuries, jaundice, infection.
5. Anencephaly & Hydrocephalus and other Congenital Anomalies of fetus.

8th Semester

Preventive Oncology

1. Preventive Oncology
2. Principles of gynecological surgical procedures
3. Pre and post operative care in Gynecology
4. Ultrasongraphy and Radiology, in Gynecology
5. Endoscopy in in Gynecology
6. Drugs and hormones in Gynecology
7. Surgical procedures in obstetrics
8. Maternal mortality
9. Prenatal mortality
10. Recurrent pregnancy wastages
11. High risk pregnancy
12. Rural obstetrics
13. Drugs in Pregnancy
14. Drugs in obstetric practice
15. Medico legal aspects in Obstetrics and Gynecology
16. Ethical problems in Obstetrics and Gynecology
17. How to break bad/ unfavorable news in Ob. Gyn. Practice.
18. Introduction to artificial reproductive technology.

In addition, integrated teaching with other departments like anatomy, physiology, biochemistry, pathology, microbiology, Forensic Medicine and Preventive and Social medicine to be organized for selected topics.

8th Term

List Of Topics Integrated Teaching

1. Development of genital tract - any malformations Of genital tract and their clinical significance -	Anatomy
2. Fetal physiology - fetal circulation	Physiology
3. Fetal malformations - genesis-	Embryology
4. CIN	Pathology
5. ARF	Physiology Medicine
6. Coagulation failure	Pathology Medicine
7. Diabetes, heart disease	Medicine
8. USG	Radiology
9. Infections in pregnancy	Microbiology
10. Medico-legal aspects	Forensic Medicine
11. Nutrition in pregnancy and lactation	PSM
12. Evidence based obstetrics	PSM
13. Drugs in pregnancy	Pharmacology

Scheme For Examination

- **Internal assessment: 40 (Theory 20 +Practical 20)**
- Marks of Internal Assessment should be sent to University before the commencement of Theory examination.
- Passing in internal assessment is essential for passing, as Internal assessment is separate head of passing in examination.
- It will also be considered for grace marks as per existing rules
- Combined theory and practical of internal assessment will be considered for passing in internal assessment.
- 8TH semester formative internal assessment examination will be conducted by OSCE/OSPE method.
- Student will be allowed to appear for both theory and practical exam independent of marks obtained in internal assessment but he if fails in that head even after including the grace marks he will be declared **"Fail** in that Subject**"**

- **Internal assessment in Theory –**
  Examinations during semesters:

  There will be carried out by conducting three theory examinations during 6^{th}, 8th and 9^{th} semesters (Prelim) (40, 40, 80 marks accordingly). Total of 160 marks to be converted into 12 marks. (6^{th} + 8^{th} + 9^{th} x 20 / 160 = 20)

  Internal assessment in Practical

  There will be carried out by conducting three Practical examinations during 6^{th}, 8th and 9^{th} semesters (Prelim) (40, 40, 80 marks accordingly). Total of 160 marks to be converted into 20 marks. (6^{th} + 8^{th} + 9^{th} x 20 / 160 = 20)

Evaluation Methods - Theory, Practical and Viva

Pattern of theory examination including distribution of marks

- There shall be two theory papers - Paper I and II, carrying 40 marks each.
- Each paper will have three sections, A, B & C Each paper will be of 2.5 hours duration.
- Section A will be MCQ in each paper and Section B will have LAQ, BAQ, SAQ, answer sheet.
- MCQ section A will be given to candidates at the beginning of the examination.
- After 30 minutes Section A will be collected. Section B of paper will then be handed over to candidates

Paper I

Topics - Obstetrics including social obstetrics and newborn care.

Section A: **30 min**

- Twelve MCQs- 1 mark each: 12 marks
- Single based response
- MCQ will cover whole syllabus of Paper I

Section B: **2 hrs.**

Section B	–	One LAQ	:	12 marks
	–	Four / Six (BAQ)	:	2 marks each: 8 marks
	–	Two / Three (SAQ)	:	4 marks each: 8 marks

(Will contain some preclinical/Para clinical aspects)

Paper II

Topics - Gynaecology, Family Welfare and Demography.

Section A: **30 min.**

- Separate paper

Section A: **30 min**

- Twelve MCQs- 1 mark each: 12 marks
- Single based response
- MCQ will cover whole syllabus of Paper I

Section B: **2 hrs.**

- **Section B**
  - One LAQ : 12 marks
  - Four / Six (BAQ) : 2 marks each: 8 marks
  - Two / Three (SAQ) : 4 marks each: 8 marks

(Will contain some preclinical/Para clinical aspects)

Practical **60 Marks**

a. Long Case: **40 Marks**

A) History : 10 Marks
B) Clinical Exam : 10 Marks
C) Investigations & diagnosis : 10 Marks
D) Management : 10 Marks

II. Short Case: **10 Marks**

E) Presentation : 05 Marks
F) Discussion : 05 Marks

III. Family Planning : **10 Marks**

Total: **60 Marks**

IV. Oral / Viva: **20 Marks**

G) Obstetric Viva : 10 Marks

H) Gynaecology Viva : 10 Marks

Total Marks For Practical & Oral (60+20) = 80 Marks

Marks of VIVA will be added to Theory marks. It is mandatory to obtain 50% marks in theory + viva/oral.

Section C:

Internship Programme

Internship discipline related and curriculum in family welfare shall be according to norms laid down by Medical Council of India

Section D:

Curricula for The Family Welfare

It shall be as per M.C.I. and is included in respective subjects.

KRISHNA INSTITUTE OF MEDICAL SCIENCES, DEEMED TO BE UNIVERSITY KARAD

Department of Pediatrics

Under Graduate Curriculum of Pediatrics MBBS

Programme Name_ Bachelor of Medicine & Surgery (MBBS)

Programme Code-1101

Course Code-1101-44

PAEDIATRICS

Paediatric including Neonatology

The course includes systematic instructions in growth and development, nutritional needs of a child, immunization schedules and management of common diseases of infancy and childhood including scope for Social Paediatrics and counselling.

GOAL

The broad goal of the teaching of undergraduate students in Paediatrics is to acquire adequate knowledge and appropriate skills for optimally dealing with major health problems of children to ensure their optimal growth and development.

OBJECTIVES

Knowledge

At the end of the course, the student shall be able to:

1. Describe the normal growth and development during foetal life, neonatal period, Childhood and adolescence and outline deviations thereof;
2. Describe the common paediatric disorders and emergencies in terms of Epidemiology, aetiopathogenesis, clinical manifestations, diagnosis, rational therapy and rehabilitation;
3. Age related requirements of calories, nutrients, fluids, drugs etc, in health and disease;
4. Describe preventive strategies for common infectious disorders, malnutrition, genetic and metabolic disorders, poisonings, accidents and child abuse;
5. Outline national Programmes relating to child health including immunization Programmes.

COURSE OUTCOME

After completing MBBS, graduates must have basic knowledge of paediatrics and confidence to address patients and their relatives. They must have basic knowledge of human anatomy, physiology and biochemistry. They must know about pathogenesis of common illnesses. They must be aware about various microorganisms and the diseases caused or spread by them and ongoing epidemics. They should be well versed with common drug doses, mechanism of action, side effects and interactions.

They must be aware of various medico legal complications that can arise in clinical work. They must know about common eye and ear problems in paediatric age group and emergency first

aid administration. They must possess basic knowledge about community health care, national programmes, water disinfection, and communicable diseases.

They should be confident about history taking, basic examination, and ability to perform triag e at presentation, identify critically ill patient requiring emergency attention and transfer to higher centre.

They must possess basic skills required for suturing of small wounds, immobilization of fractures, etc.

They should have knowledge about basic neonatal and paediatric resuscitation protocol.

They must be able to identify common intoxications and other emergencies and initiate first line stabilization after calling for assistance.

SKILLS

At the end of the course, the student shall be able to:

1. Take a detailed paediatric history, conduct an appropriate physical examination of children including neonates, make clinical diagnosis, conduct common bedside investigative procedures, interpret common laboratory investigation results and plan and institute therapy.
2. Take anthropometric measurements, resuscitate newborn infants at birth, prepare oral rehydration solution, perform tuberculin test, administer vaccines available under current national programmes, perform venesection, start an intravenous saline and provide nasogastric feeding.
3. Conduct diagnostic procedures such as a lumbar puncture, liver and kidney biopsy, bone marrow aspiration, pleural tap and ascetic tap.
4. Distinguish between normal newborn babies and those requiring special care and institute early care o all new born babies including care of preterm and low birth weight babies, provide correct guidance and counseling in breast feeding.
5. Provide ambulatory care to all sick children, identify indications for specialized / inpatient care and ensure timely referral of those who require hospitalization:

INTEGRATION:

The training in paediatrics should prepare the student to deliver preventive, promotive, curative and rehabilitative services for care of children both in the community and at hospital as part of team in an integrated form with other disciplines, e.g. Anatomy, Physiology, Forensic Medicine, Community Medicine and Physical Medicine and Rehabilitation.

Lecture/ Seminars

3rd / 4th Semester

1. Introduction of Paediatrics.
2. History taking in children.
3. Examination of Children.
4. Normal Growth
5. Normal Development.
6. Introduction to newborn and normal newborn baby.
7. Temperature regulation in newborn.
8. Breast-feeding and lactation management.
9. Infant and child feeding (include complimentary feeding)
10. Normal fluid and electrolyte balance in children.
11. Immunization.

7th / 8th / 9th Semester

1. Birth Asphyxia
1. Low Birth Weight Babies.
2. Neonatal Respiratory Distress.
3. Jaundice in newborn.
4. Neonatal Infections.
5. Neonatal convulsions.
6. PEM and its management.
7. Vitamin and micronutrient deficiencies.
8. Nutritional anemia in infancy and childhood.
9. Acute diarrhea.
10. Hypothyroidism in children.
11. Congestive heart failure - diagnosis and management.
12. Congenital heart disease.
13. Rheumatic heart disease.
14. Hypertension in children.
15. Acute respiratory infections.
16. Bronchial asthma.
17. Nephrotic syndrome

18. Acute glomerulonephritis and hematuria
19. Abdominal pain in children.
20. Chronic liver disease including ICC.
21. Haemolyticanaemia including thalassemia.
22. Leukemia's.
23. Bleeding and coagulation disorders.
24. Seizure disorders.
25. Cerebral Palsy.
26. Common exanthematous illness.
27. Childhood tuberculosis
28.Interpretation of X-rays
29. Growth Chart
30. Basics of ventilator
31. Basics of ABG

Other Lectures to be covered

1. Fluid and electrolyte balance -pathophysiology and principles of Management.
2. Acid-base disturbances - pathophysiology and principles of management.
3. Adolescent growth and disorders of puberty.
4. Congenital heart disease.
5. Acute respiratory infections, Measles, Mumps, Chicken pox
6. Other childhood malignancies.
7. Coagulation disorders - Hemophilia
8. Mental retardation.
9. Approach to a handicapped child.
10. Acute flaccid paralysis.
11. Behavior disorders.
12. Meningitis.
13. Diphtheria, Pertussis and Tetanus.
14. Childhood tuberculosis.
15. HIV infection.
16. Zika viruses
17. Malaria.
18. Neurocysticercosis.
19. Enteric fever.
20. Immunization.
21. Pediatric prescribing.
22. Common childhood poisonings.
23. Interpretation of peripheral smear

Integrated Seminar Topics

- Convulsions
- Coma
- Childhood Obesity
- Management of Comatose child
- PUO
- Jaundice
- Portal hypertension
- Respiratory failure
- Shock
- Rheumatic Heart Disease
- Hypertension
- Diabetes mellitus
- Hypothyroidism
- Anemia
- Bleeding
- Renal failure
- New emerging viral diseases
- Peritoneal dialysis indication, contraindication and complication
- Tuberculosis
- Malaria
- HIV infection
- Neurocysticercosis
- Perinatal asphyxia (with obstetrics)
- Intrauterine growth retardation (with obstetrics)
- Fetal Medicine
- Adolescence health problems in theory & practical

Scheme of Examination

Theory - One paper = 40 marks
(Shall include one question on basic sciences & allied subjects)
Oral (Viva) = 10 marks
Clinical = 30 marks
Internal Assessment = 20 marks
(Theory 10 Marks, Practical 10 Marks)
Grand Total = 100 marks

Sr No	Subject	Theory Paper/ Oral/ Practical / Internal Assessment		Maximum Marks in each of the subject Theory + Oral	Minimum marks required to pass in each part of any subject	Minimum marks required to pass in each subject out of 100
01	Paediatrics	a) Theory	Paper	40	25	50
		b) Oral		10		
		c) Practical		30	15	
		d) Internal Assessment	Theory	10	10	
			Practical	10		

Evaluation

Internal assessment: 20 (Theory 10 + Practical 10)

- Marks of Internal Assessment should be sent to University confidentially before the
- Commencement of Theory examination.
- Passing in internal assessment will be pre-requisite for clearing the subject.
- Combined theory and practical of internal assessment will be considered for passing in internal assessment.

Internal assessment in Theory

1. Examinations during semesters: This will be carried out by conducting two theory examinations at the end of 6th and 8th semesters (50 marks each).

   Total of 100 marks to be converted into 5 marks. - (A/5)

2. Prelim examination: This shall be carried out during 9th semester. One-theory papers of 40 marks as per university examination.

   Total of 40 marks to be converted into 5 marks. - (B/5)

   Total marks of internal assessment of Theory will be addition of A and B.

Internal assessment in Practical

Examinations at end of Clinical postings:

1 There will be practical examination at the end of each clinical posting of Paediatrics:

6th and 8th semester. Each examination will be of 50 marks.

Total of 2 examinations - 100 marks, will be converted to 5 marks. - (C/5)

2. Prelim examination:

This will be conducted for 40 marks as per university examination pattern and marks will be converted to 5. - (D/5).

Total marks of internal assessment of Practical will be addition of C and D.

Evaluation Methods - Theory, Practical and Viva

Pattern of theory examination including distribution of marks, questions & time Pattern of theory examination including distribution of marks.

1.There shall be one theory paper, carrying 40Marks
2 The paper will have two sections, A and B

3 The paper will be of 2½ hours duration.

4 Section A will be MCQ in each paper. Section B will have to be written in separate answer sheets.

Theory: 40 marks Duration: 2½ hours

MCQ section A will be given to candidates at the beginning of the examination.

After 30 minutes Section A will be collected. Section B of paper will then be handed over to candidates.

Section A: 30 min.

24 MCQs - 1/2 mark each: 12 marks

- Separate paper
- Single based response
- MCQ will cover whole syllabus

Section B: 2 hrs.

1 LAQ of 8 marks each: 8 marks

3 /4 SAQ of 4 marks each: 12 marks
2/4 BAQ of 2 marks each: 8

Practical 40 Marks

One Long case 20 Marks
Case taking Time 45 min
Examination Time 10 min
One short case
One Long case 10 Marks
Case taking Time 10 min
Examination Time 05 min

Oral (Viva Voice) 10 marks
Duration 10 min

(Instruments, X-ray, Drugs, Emergency in Pediatrics.)
It is directed to interpretation of investigations.

List of common patients to be kept for Clinical Examination -
List of Long Cases & Short Cases

Hepatospleenomegaly

Plural effusion

Pneumonia

Pnemotherax,

Hydropnemothorax

Malnutrition

Hematological disorder like bleeding disorder

Thalassemia

Acute Lymphatic Leukemia

Cong. Heart disease

Acquired Heart disease
Rheumatic fever
Rickets
Mongolism
Nephrotic syndrome
Acute glomerulonephritis
Cerebral palsy
Liver cirrhosis
Ascites with portal hypertension
Hypothyroidism
Tuberculosis
Hepatitis
Anemia
Meningitis
Muscular dystrophy
Urinary Tract Infection
Febrile Convulsion
Seizure

Short Cases

New Born
Anemia
Enteric fever,
Measles,
Mumps
Malnutrition
General examination
Acute gastroenteritis with dehydration