



# BLDE UNIVERSITY

## Fellowship and Certificate Courses 2011-12

Published by  
**BLDE UNIVERSITY**

[Declared as Deemed to be University u/s 3 of UGC act, 1956, vide notification No.F.9-37/2007-U.3(A)]

The Constituent College

**SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE**

Smt. Bangaramma Sajjan Campus, Sholapur Road, Bijapur - 586103, Karnataka, India.

University: Phone: +918352-262770, Fax: +918352-263303, Website: [www.bldeuniversity.ac.in](http://www.bldeuniversity.ac.in), E-mail: [office@bldeuniversity.ac.in](mailto:office@bldeuniversity.ac.in)

College: Phone: +918352-262770, Fax: +918352-263019, E-mail: [bmPMC.principal@bldeuniversity.ac.in](mailto:bmPMC.principal@bldeuniversity.ac.in)

## CONTENTS

<b>Sl. No.</b>	<b>Courses</b>	<b>Page No.</b>
1	Notification	-
2	Vision & Mission	-
3	Fellowship in Pediatric Dermatology	1
4	Fellowship in Dermatopathology	5
5	Fellowship in Paediatric Urology	9
6	Certificate Course in Operation Theatre Technology	18



## B.L.D.E. UNIVERSITY

(Declared vide notification No. F.9-37/2007-U.3 (A) Dated. 29-2-2008 of the MHRD, Government of India under Section 3 of the UGC Act,1956)  
The Constituent College

### SHRI. B. M. PATIL MEDICAL COLLEGE, HOSPITAL AND RESEARCH CENTRE

BLDEU/REG/ALLIED/2010-11/1297/A

March 17, 2011

#### NOTIFICATION

**Sub: Curriculum for Medical and Allied Courses (Fellowship and Certificate Courses)**

Ref: 1. Minutes of the meeting of the 7<sup>th</sup> Academic Council of the University held on 4<sup>th</sup> March, 2011

2. Minutes of the meeting of the 11<sup>th</sup> BoM of the University held on 5<sup>th</sup> March, 2011

The Board of Management of the University is pleased to approve the Curriculum for Medical and Allied Courses (Fellowship and Certificate Courses) at its 11<sup>th</sup> meeting held on March 05, 2011.

The curriculum shall be effective from the Academic Session 2011-12 onwards, in the constituent College of the University viz. Shri B. M. Patil Medical College, Hospital and Research Centre, Vijayapura.

  
REGISTRAR  
REGISTRAR.  
BLDE University, Bijapur.

Copy to:

- The Secretary, UGC, New Delhi
- The Dean, Faculty of Medicine & Principal
- The Vice Principal
- The Medical Superintendent
- The Controller of Examinations
- The Chairman, Committee for Medical & Allied Courses
- The Prof. & HoDs of Pre, Para and Clinical Departments
- The Coordinator, IQAC
- PS to Hon'ble Vice-Chancellor

BLDEU/REG/ALLIED/2015-16/

January 20, 2016

Smt. Bangaramma Sajjan Campus, Sholapur Road, Bijapur – 586103, Karnataka, India.

University: Phone: +918352-262770, Fax: +918352-263303, Website: [www.bldeuniversity.org](http://www.bldeuniversity.org), E-mail: [office@bldeuniversity.org](mailto:office@bldeuniversity.org)

College: Phone: +918352-262770, Fax: +918352-263019, Website: [www.bldea.org](http://www.bldea.org), E-mail: [bmpmcl@yahoo.co.in](mailto:bmpmcl@yahoo.co.in)

## **Vision and Mission**

- *Committed to provide globally competitive quality medical education.*
- *To provide the best health care facilities in this backward region, in particular, to socially disadvantaged sections of the society.*
- *Constantly striving to become a reputed research University with world-class infrastructure, latest tech-tools for teaching/research and adopting global best practices.*

## **Fellowship in Pediatric Dermatology**

### **Preamble:**

Dermatology is an ever expanding medical science. Sub specialties are growing at a rapid pace. Pediatric dermatology is one such sub specialty which has grown enough even in developing countries. Pediatric skin is functionally and to some extent structurally immature and the skin diseases in this age group are unique in several ways such as prevalence, clinical presentations, and response to therapy. The dermatoses range from simple benign birth mark to life threatening staphylococcal scalded skin syndrome and disabling genodermatoses like lamellar ichthyoids and xeroderma pigmentosa. Above all the pediatric skin disorders cause considerable parental anxiety. In this part of the world consanguineous marriage is very high and so are the prevalence of genodermatoses. The effective management of a child with dermatological disorders requires expertise, experience and focused approach which are quite difficult during post graduate training in dermatology, venereology and leprosy. So a fellowship program in pediatric dermatology following post graduation in dermatology is the need of the hour.

### **Objectives:**

At the end of the fellowship program the candidate should

1. Comprehensively manage the dermatological conditions unique to pediatric age group
2. Comprehensively manage the pediatric and neonatal dermatological emergencies
3. Acquire the knowledge of pharmacology of dermatological drugs used in pregnancy, lactation and children
4. Exhibit skills like performance of emergency procedures, fluid and electrolyte balance etc.
5. Master communication with referring physicians and learn how to interact with and effectively communicate with other specialty services in both outpatient and inpatient settings.

**Course Duration:** One year

### **Eligibility**

Post graduate degree or diploma in dermatology from a MCI recognized institution

## **Course content**

- The program is divided into four modules of three months each
- Each module will have particular syllabus (see under syllabus)
- At the end of each module the candidate will be assessed by theory examination, practical test, and problem solving questions
- At the end of the program the candidate will be once again assessed by theory examination, practical test and problem solving questions
- Candidate has to select (at the start of second module) and complete (at the end of third module) a project to address the pediatric dermatological problems faced by the people in and around the place of fellowship program

## **Syllabus**

### **Module I (First trimester)**

1. Structure and functions of the skin
2. Neonatal dermatology
3. Bacterial infections
4. Viral Infections
5. Fungal infections
6. Protozoal and Helminthic infestations
7. Bites, Stings and infestations

### **Module II (Second trimester)**

1. Sexually transmitted diseases and HIV/ AIDS
2. Cutaneous mycobacterial infections
3. Eczemas
4. Disorders of keratinization
5. Vesiculo-bullous disorders
6. Pigmentary disorders
7. Photosensitive disorders

### **Module III (Third trimester)**

1. Vascular reaction pattern
2. Vascular malformations, tumors, and associated syndromes

3. Disorders of mucous membrane
4. Disorders of hair
5. Disorders of nail
6. Disorders of cutaneous appendages
7. Diseases of the dermis and subcutaneous tissue

#### **Module IV (Fourth trimester)**

1. Neoplastic skin disorders
2. Cutaneous Mastocytosis and Histocytosis
3. Collagen vascular disorders and systemic vasculitides
4. Skin in systemic diseases and multisystem disorders
5. Genodermatoses
6. Pediatric dermatological emergencies

#### **Teaching and Learning activities**

1. Lectures: Conducted by pediatricians and pathologists on relevant topics
2. Teaching programs
  - Journal club: Once in a week
  - Case presentation: Once in a week
  - Seminar: Once in a month
  - Histopathology: Once in a week
  - Continued medical education/ workshop/ Conference
  - Teaching skills: Undergraduate and post graduate teaching

#### **Monitoring of learning process**

1. Observation: This modality is used to assess personal attitudes, and day to day work in out patient department and wards.
2. Checklist: The performance of candidate in the teaching programs is assessed using checklists (Checklists I- IV). Different model checklists are used for each type of teaching program. Each parameter in the checklist is graded and marked accordingly.

3. Log book: Log book is used to enter day to day activities of the post graduate student:
4. Feedback: Feedback from the undergraduate students and post graduate students is used to assess teaching skills. Feedback from teaching faculty is also received to assess the performance of candidate

### **Evaluation of learning process**

#### **1. Continuous evaluation (Formative)**

- Schedule: After completion of each module
- Theory Exam: One paper of 80 marks + 20 (Average of three internal assessment held at every trimester)
- Clinical exam: 100 marks (10 spotters + 3 case discussions)
- Viva: 100marks including problem solving question

#### **2. Examination Particulars (Summative)**

- Schedule: Main examination will be held at the end of one year course
- Theory Exam:  
One paper of 80 marks + 20 (Average of three internal assessment held at every trimester)
- Clinical exam:  
100 marks (10 spotters + 3 case discussions)
- Viva:  
100marks including problem solving question
- Project work:  
100 marks (Done during the course)

Standard of passing - To complete or to pass in each paper B grade is required.

A= >75%

B = >50%

C= < 50% - Fail



## **FELLOWSHIP IN DERMATOPATHOLOGY**

### **Preamble:**

Dermatopathology is a sub-speciality of both dermatology and surgical pathology that focuses on the study of cutaneous diseases at a microscopic level. It also encompasses analyses of the potential causes of skin diseases at a cellular level. Dermatopathologists work in close association with dermatologists. In fact, some of them are trained primarily in dermatology themselves.

Dermatologists are able to recognize most skin diseases based on appearances, anatomic distributions and behavior. Sometimes, however, those criteria do not allow a conclusive diagnosis to be made, and a skin biopsy is taken to be examined under the microscope. Here comes the role of a dermatopathologist who evaluates both the clinical and microscopical features and reveals the histology of the diseases and makes a specific diagnosis, which will be helpful in early diagnosis and treatment.

### **Need of the fellowship:**

Dermatology and pathology are the branches of ever expanding medical science. In these branches sub-specialties are growing at a rapid pace. Dermatopathology is one such sub-specialty which has grown enough even in developing countries. There is need of separate fellowship to cater to the needs of dermatologists and pathologists. At present in India, there is no such facility in any of the institutes or universities.

### **Aims and objectives:**

At the end of fellowship programme in dermatopathology, fellow should be able

1. To identify basic histopathological reactive patterns of structures/components of the skin.
2. To correlate histopathological findings with clinical features to arrive at correct diagnosis.

**Goal:** The primary goal of the fellowship is the provision of comprehensive training in Dermatopathology as well as training in surgical pathology (for fellows with a dermatology background) or clinical dermatology (for fellows with a pathology background).

**Eligibility:** Post graduate degree or diploma holders in Dermatology and/or Pathology.

**Duration of the course:** 1 year, consisting of 4 trimesters

**Total Intake:** Maximum of 2 candidates per academic year.

**Selection procedure:** Interview of applicant

**Faculty:**

1. Departmental faculty of Pathology and Dermatology.
2. Guest faculty with dermatopathology sub-specialization

**Syllabus of fellowship:**

**Model 1 (1<sup>st</sup> trimester):**

1. Structure of normal skin
2. Definitions in dermatopathology
3. Clinical evaluation of skin disease
4. Skin biopsy – Types and Indications and etc.,
5. Histopathological evaluation of skin disease
6. Stains used in dermatopathology
7. Approach to diagnosis (Clinical examination & Histopathological examination)
8. Selection of Project work

**Model 2 (2<sup>nd</sup> trimester):**

1. Lichenoid tissue reactions
2. Psoriasiform tissue reaction
3. Spongiotic dermatoses
4. Reactive erythemas
5. Bullous diseases
6. Connective tissue diseases
7. Vasculitis
8. Granulomas
9. Pigmentation disorders

**Model 3 (3<sup>rd</sup> trimester):**

1. Appendigeal diseases
2. Panniculitis
3. Genodermatoses
4. Deposition disorders
5. Perforating disorders
6. Histopathology of infections
7. Role of Immunofluorescence, Immunohistochemistry and electron microscopy in dermatopathology

**Model 4 (4<sup>th</sup> trimester):**

1. Tumours of epidermis
2. Premalignant and malignant tumours of epidermis
3. Appendigeal tumours
4. Connective tissue tumours
5. Melanocytic tumours
6. Cutaneous infiltrative disorders
7. Clues in Dermatopathology

**Teaching and learning activities:**

1. Lecturers: Will be conducted by pathologists and dermatologists on relevant topics
2. Teaching programmes
  - Journal club – Once in 2 week
  - Clinico-pathological correlation - Once in a week
  - Seminar - Once in a month
  - Biopsy review - Once in a week
3. Continued medical education(CME)/ Workshop/Conference
4. Teaching – Undergraduate and Post graduate teaching

**Monitoring of learning process:**

1. **Observation:** This modality is used to assess personal attitudes, day to day work in histopathology section, dermatology out patient department (OPD's) and wards.
2. **Checklist:** The performance of candidate in the teaching programmes is assessed using checklists. Different model checklists are used for each type of teaching programme. Each parameter in the checklist is graded and marked accordingly.
3. **Log book:** Log book is used to enter day-to-day activities of the fellow.

4. **Feed back:** Feed back from teaching faculty is received to assess the performance of candidate.

**Evaluation of learning process:**

1. Continuous evaluation (Formative):
  - Schedule; After completion of each module
  - Theory exam: One paper of 100 marks
  - Practical exam: 100 marks (10 histopathology slides + Clinico-pathological case discussions)
  - Viva: 100 marks including problem solving question
2. Examination Particulars (Summative):
  - Schedule: Main examination will be held at the end of one year course
  - Theory exam: One paper of 80 marks + 20 Average of three internal assessments held at every trimester)
  - Practical exam: 100 marks (10 histopathology slides + Clinico-pathological case discussions)
  - Viva: 100 marks including problem solving question
  - Project work: 100 marks (Done during course)
  - Standard of passing: To complete or to pass in each paper B grade is required. ( A Grade = > 75%, B Grade = > 50%, C = < 50% Fail)

# **FELLOWSHIP IN PAEDIATRIC UROLOGY**

## **Preamble**

The objective of certificate examination in Paediatric urology is to produce highly competent manpower in Paediatric Urology

## **Objectives**

The training ingredients should provide in depth knowledge of Paediatric Urology and relevant allied subjects

## **Eligibility for Admission**

Basic requirement is a Master of Surgery, (M. Ch) in Urology or a M.Ch Paediatric Surgery or DNB in General Surgery, Urology, Paediatric Surgery of the National Board of Examination, from a recognized institution.

## **Duration of Course**

Duration of the course will be for one Academic year

## **Medium of Instruction**

Medium of instruction  
is English

## **Attendance**

Atleast 80% during one year period

## **Course content for each subject**

### **1. Normal and pathological embryology of the urinary and genital tract**

- Development of the kidney and ureter
- Development of the bladder and the urethra
- Development of the female genital tract
- Development of the male genital tract

### **2. Nephrology**

- Normal physiology of the urinary tract and kidney
- Pathophysiology of pre and postnatal hydronephrosis

- Haematuria
  - Definition
  - Analysis
  - Aetiology
  - Diagnostic
- Parenchymal Pathology
  - Glomerular diseases (glomerulonephritis, hemolytic-uraemic-syndrome)
  - Tubular diseases (acute renal insufficiency, hereditary diseases)
  - Interstitial nephritis
- Renal insufficiency and dialysis
  - Aetiology of chronic renal insufficiency
  - Clinic (pyuria, anaemia, hypertension, bone metabolism; growth disorders)
  - Dialysis (indication, peritoneal-haemodialysis)
- Renal Transplantation
  - Indication
  - Selection, risks and contra-indications
  - Preparation and diagnostic work-up
  - Transplantation-immunology (HLA)
  - Cadaveric and living donor kidney
  - Surgical technique of explantation, implantation and postoperative technical complication
  - Working of Euro-Transplant-organization
  - Post transplant immunosuppression technique
  -

### **3. Infection**

- Definition of UTI (asymptomatic bacteriuria, bacterial cystitis, pyelonephritis)
- Diagnosis of UTI (microbiology, culture media, preparation techniques)
- Specific infection clinical features (abscess, tuberculosis, candida, eosinophilic cystitis, cystitis-cystica)
- Orchitis, epididymitis

### **4. Principles in diagnosis of the urinary tract**

- History and physical examination of the child at different ages
- Associated clinical signs with anomalies of the urinary tract
- Urinalysis (stix, microscopic, chemical, culture)
- Serum-analysis

- Imaging of the urinary tract
  - Ultrasound, color Doppler: theory, possibilities and limitations
  - X-ray: protection principles, urography, cystography, video-urodynamics
  - Contrast media: principles, indication and contra-indications
  - Computerized tomography (principles, interpretation, possibilities, limitations)
  - Magnetic Resonance imaging (principles, interpretation, possibilities, limitations)
- Special imaging of the urinary tract using radio-isotopes
  - Principles
  - Static imaging: DMSA
  - Dynamic imaging: DTPA, MAG-3
  - Interpretation of clearance and glomerular filtration rate: principles and limitations
  - Direct and indirect cystography
  - Extrarenal imaging: neuroblastoma
- Prenatal diagnostic
  - Ultrasound
  - Urinalysis (electrolytes, tubular markers)
- Non-invasive diagnostic of the lower urinary tract
  - Uroflowmetry (principles, methods, interpretation)
  - Electromyography (principles, methods, interpretation)
- Invasive diagnostic of the lower urinary tract
  - Antegrade and retrograde cystography (technique, interpretation)
  - Video-urodynamic study (technique, interpretation)
  - Cystometry (ambulatory and non-ambulatory)

## **5. Pre, peri and post operative management of the child – Anesthesia principles**

- Selection, pre-operative studies
- Parental information pre and post operative
- Ambulatory surgery
  - Selection
  - Local anesthesia techniques (methods, pharmacology)
- Pain management (oral, rectal, parenteral)

- Post operative fluid management
- Anaesthesia (principles, premedication)

**6. Anomalies of the kidney and the upper urinary tract** – diagnostic, management, therapeutic options, surgery selection, surgical techniques of:

- Prenatal hydronephrosis and associated problems (pulmonary hypoplasia)
- Renal agenesis
- Renal hypoplasia
- Renal dysplasia (multicystic dysplastic kidney, cystic dysplasia with obstruction)
- Renal duplication: incomplete
- Polycystic infantile and adult renal disease
- Horseshoe-kidney
- Renal ectopia
- Uretero-pelvic junction obstruction (UPJ)
- Megacalycosis
- Ureterocele (intra and extravesical)
- Ectopic ureter

**7. Anomalies of the lower urinary tract** – Diagnostic, management, therapeutic options, surgery selection, surgical techniques of:

- Urachal pathology (open urachus, cysts, sinus, diverticulum)
- Exstrophy – Epispadias – complex
- Bladder diverticulum
- Vesico-ureteral reflux
- Urethral valves
- Urethritis posterior
- Urethral strictures
- Duplication of the urethra
- Urethral diverticulum
- Meatal prolapse
- Urogenital sinus anomalies
- Cloacal anomalies



**8. Anomalies of the upper and lower urinary tract-** Diagnostic, management, therapeutic options, surgery selection, surgical techniques of:

- Prune-Belly-Syndrome

**9. Anomalies of the penis-** Diagnostic, management, therapeutic options, surgery selection, surgical techniques of:

- Hypospadias
- Phimosi (lichen sclerosus)
- Epispadias
- Buried penis
- Penoscrotal web
- Micropenis

**10. Anomalies of the testis and the scrotum -** Diagnostic, management, therapeutic options, surgery, selection, surgical techniques of:

- Maldescent of the testis (cryptorchism, ectopia, retractile)
- Anorchia, polyorchia
- Hydrocele, hernia
- Varicocele
- Spermatocoele

### **11. Sexual differentiation problems**

- Embryology and physiology of genital differentiation
- Hermaphroditism, female and male pseudohermaphroditism
- Mixed gonadal dysgenesis
- Chromosomal abnormalities

### **12. Functional disorders of the lower urinary tract**

- Normal anatomy and physiology
- Classifications of functional disorders
- Urinary diversion techniques
- Non-neuropathic function disorders
- Neuropathic function disorders: conservative treatment, bladder augmentation

- Management of associated problems of neurogenic disorders (bowel, tethered cord, pubertas praecox, latex allergy, amnesia)

### **13. Primary monosymptomatic nocturnal enuresis**

- Pathophysiology
- Treatment options

### **14. Paediatric urology emergencies - Diagnostic, management, therapeutic options, surgery, selection, surgical techniques of:**

- Renal infectious problems (pyonephrosis, renal abscess)
- Renal non-infectious problems (trauma, renal vein thrombosis)
- Ureteral trauma
- Adrenal haemorrhage
- Renal colic (acute upper urinary tract obstruction)
- Urinary retention
- Testicular torsion
- Torsion of the appendix testis
- incarcerated hernia
- Testicular rupture
- Orchitis
- Epididymitis
- Paraphimosis
- Priapism
- Penile and scrotal trauma
- Bladder trauma (intra and extraperitoneal rupture)
- Urethral rupture
- Trauma of the female genital tract
- Infection of the female genital tract (vulvovaginitis, foreign body)
- Acute hydro and haematocoele
- Idiopathic scrotal oedema

### **15. Urolithiasis**

- Aetiology
- Metabolic disorders
- Chemical characteristics
- Clinical, diagnostic and management
- Treatment options

**16. Paediatric urology oncology** - Diagnostic, management, therapeutic options, surgery, selection, surgical techniques of:

- Wilm's tumour
- Neuroblastoma
- Rhabdomyosarcoma
- Testicular tumours (leydig cell, Yolk sac, Leukaemia)
- Hypernephroma
- Pheochromocytoma
- 

**17. Management and social aspects of the care of the child as a patient**

- Communication skills with the child and its family
- Knowledge of the psychosocial and sexual development of a child

### **Teaching Hours**

1. Daily ward rounds
2. O.T as when cases are posted
3. Tuesday – Case discussion (2 hrs)
4. Thursday – Journal club / seminar (2 hrs)

### **Scheme of Examination for each subject**

- a. Internal assessment
 

Student will be assessed on day to day basis. No internal marks to be covered
  - b. University Examination
- i. Theory: There will be 3 papers.
 

Paper I : Basic sciences as applied to genitor – urinary surgery including adrenals

Paper II : Clinical and operative  
pediatric urology Paper III: Recent  
advances.

Duration of the examination will be one and half days. Paper I and II  
on first day and paper III on second day. Each paper will be for 3  
hours. Each paper will consist of 10 short questions so that wider field  
can be tested. Paper setter should give an outline of a model answer  
along with the question paper submitted.

ii. Practicals

Practical examination will be in two parts

i. Clinical and (ii) Viva voce

Both the parts of the examination will be conducted on the same day,  
clinical examination in the morning and viva voce in the after noon.

In the clinical examination, the candidate will be given 3 fully worked  
up cases for examination in 1 hour. He will have to write history and  
findings on a paper. This will be submitted after he has been examined.  
He will also to take for a ward round of completely worked up cases  
numbering 3-5.

Viva voce examination is divided into (1) Instruments and operation (2)  
Pathology specimens and slides (3) Imaging including X-rays, Isotope  
Renograms, Urodynamics studies, MRI, Angiograms. By making use  
of this in a viva voce examination the candidate will be examined in a  
wide range of subjects including and subspecialties of Paediatric  
Urology.

**Reference Book for each subject**

1. Adult & Paediatric Urology – Gellinwater 2007
2. Campbell's Walsh Urology – 2007
3. Paediatric Urology - 2007

**Declaration of Results:**

a. Criteria for pass – Main subject

Minimum of 50% in theory and practical individually

b. Declaration of Class

- 65 % First Class
- 75% Distinction

c. Carryover benefit

**Examiners**

No. of Examiners to conduct theory valuation & practical  
examination Three - One internal, Two External

The theory / practicals will be assessed by the same group examiners

**Eligibility to become an examiner**

Prof and 10 years in Active Urological / Pediatric Surgical Practice

## **Certificate Course in Operation Theatre Technology (OT Technology)**

### **Preamble:**

The OT Technology course is basically an intermediary course to bridge the gaps in OT functioning and train the individuals capable of managing the day to day function of operation Theatres. These individuals will be trained in understanding of:

1. Basics of asepsis and antisepsis
2. Pre-preparation, maintenance and recovery of patient during surgery
3. Routine maintenance of OT equipments
4. Assisting Anaesthesiologists and Surgeons
5. Understanding and assisting in executing special needs of special procedures & similar other complex procedures

### **Goals:**

At the end of the course the individual trained and certified, shall be capable of understanding the basics of antisepsis and asepsis, carry out routine activities of the operation theatres with due diligence and appropriate handling as required.

**Eligibility Criteria:** PUC Science or ANM

**Course Duration:** One year

### **Course Contents:**

The course will be module based and the candidate has to go through the graded training module to be promoted to next module. After satisfactory completion of the specified modules, final University exam will be conducted comprising all the aspects which will include theory examination and practicals. Successful candidate will be certified as certified OT technologist.

Each module is four weeks or One month.

### **The Main Contents Will Be**

1. Asepsis and antisepsis
2. Sterilization and concepts of sterile and unsterile handling and universal

precautions

3. Basics of human physiology like respiration, consciousness levels, blood pressure, temperature monitoring, hemorrhage etc.
4. Basic fluids and other common drugs, sutures used for surgeries etc.
5. Understanding pre-operative preparation of patients, positioning & shifting of patients.
6. Understanding working of common equipments used in OT, Anaesthesia equipment maintenance of all these.
7. Bio Medical waste disposal.
8. Preservation of various samples in OT and appropriate storage and transport.
9. Understanding requirements of operating surgeons, Anaesthesiologists nursing staff and provide appropriate timely assistance to them.
10. Understanding special working patterns and requirements of various surgical specialties like, Surgery, Orthopaedics, ENT, Ophthalmology, Urology and others.
11. Understanding the basic concepts of recovery of operated patients, early post operative care and appropriate shifting etc.

**First Module:**

Basic divisions of OT, Hierarchy in working system, Sterile and unsterile areas, No Entry zones, preparatory areas, basic precautions.

**Second Module:**

Sterilization: understanding sterile and unsterile handling with awareness regarding universal precautions.

**Fourth Module:**

Basic human physiology

**Fifth Module:**

Basic working of various Anaesthesia equipments and understand various requirements of Anaesthesiologists.

**Sixth Module:**

Common requirements of pre-operative preparations and procedures, cross verify and check the material sent with patients and documents etc. Shifting, positioning and keeping the patient ready for Anaesthesiologists.

**Seventh Module:**

Under department of Obstetrics and Gyneacology and learn the special requirements in addition to basics already learnt. He will learn to assist Paediatric team in caring the newborn.

**Eighth Module:**

Special requirements of Orthopaedic OT, handling C-Arm and other equipments.

**Ninth Module:**

Special requirements of Ophthalmic and Otorhinolaryngology OTs.

**Tenth Module:**

Understanding working of superspeciality OTs i.e, Urology, Paediatric surgery and Neurosurgery.

**Eleventh Module:**

Dedicated to learn maintenance of usage of endoscopes, minimally invasive surgery equipments of general Surgery, Urology, ENT etc.

**Twelfth Module:**

To understanding basic concepts of recovery of operated patients, assessment of recovery and care in early post-operative period and shifting to concerned sections.

**Scheme of Examination**

**Theory Two papers: 50 Marks each.**

**Practical: 40 Marks.**

**Viva: 10 Marks**

**Criteria for Pass:** Theory including viva: Mminimum 50% to pass

Practical: Mminimum 50% to pass