

**REGULATIONS AND SYLLABUS  
FOR  
DIPLOMA IN OPERATION THEATRE MANAGEMENT**

*Offered by*

**BHARATHIAR UNIVERSITY, COIMBATORE  
FROM 2007-2008**

*Under The*

**UNIVERSITY INDUSTRY INTERACTION AND  
CONSULTANCY SERVICE CENTER (UIICSC)  
COLLABORATIVE PROGRAMME**

## DIPLOMA IN OPERATION THEATRE MANAGEMENT

### Course Title and Description

The course shall be called as “**DIPLOMA IN OPERATION THEATRE MANAGEMENT**”. The course is designed to prepare technicians with specialized knowledge, skill and attitude in basics of operation room techniques.

The programme will be conducted at a Hospital recognized by the Bharathiar University under the UIICSC collaborative programme. Candidates shall abide by the stipulated timings, discipline, rules and regulations of the hospital to which they will be assigned for the entire course.

### REGULATIONS

#### 1) Admission Eligibility:

- i) +2 with Physics, Chemistry & Biology
- ii) Both male and female aged 17 and above
- iii) B.Sc. Graduates also can apply

#### 2) Duration of the Course:

The duration shall be 12 months Full Time. The candidates admitted to this course would spend at least six hours a day and 30 hours per week in the Bharathiar University Recognized Hospitals.

#### 3) Medium of Instruction:

English shall be the medium of instruction

#### 4) Courses & Scheme of Examination:

Paper No.	Subject	Credit Hours	Max Marks	
			Int	Ext
01	Basics of Anatomy and Physiology	6	60	90
02	Applied Microbiology	6	60	90
03	Operation room Management	6	60	90
04	Foundations in Microbiology - <b>Practical</b>	6	60	90
05	Operation room Techniques - <b>Practical</b>	6	60	90

#### 5. Practical Training:

Being practical oriented programme the focus will be more for practical training. The candidate shall undergo a practical training in Ambulances and acute care Emergency rooms of the Bharathiar University affiliated Institutions.

#### 6. Requirement to appear for examination:

Candidate should put in a minimum of 80% attendance to be eligible to appear for the examinations.

#### 7. Passing minimum:

To pass

- a. A Candidate shall secure a minimum of 50%marks individually in the practical and Theory Examinations. A candidate failing in any one component will have to reappear for that particular component only in the supplementary examination.
- b. The Candidate shall secure 50% marks in internals.

## **8. Classification of successful candidate**

A candidate who has secured 75% and above, aggregate in the theory and practical examinations, in the first attempt, shall be deemed to have passed the examinations First class with distinction.

A candidate who has secured 60% and above aggregate in the theory and practical examinations in the first attempt shall be deemed to have passed the examination With First Class.

Other successful candidates shall be declared to have passed the examination in Second Class.

## **9. Conferment of degree:**

A candidate, who has passed all the examinations as prescribed, shall be eligible to receive the “DIPLOMA IN OPERATION THEATRE AND MANAGEMENT” from the Bharathiar University.

## **10. Ranking:**

Candidates who have passed all the examinations in the very first attempt and secure the first five positions in aggregate marks will be awarded University Ranks.

## **11. Revision of regulations and syllabus:**

The syllabus and regulations of the course are subject to modification by the concerned board once in three years.

## **12. Question paper pattern:**

University examination shall be conducted for 90 marks. The pattern of question paper for all the subject shall be follows:

- Multiple choice / one word answers : 15 x 1 = 15 marks (no choice)
- Short notes (100 words/ one paragraph) : 5x5 = 25 marks (either/or type)
- Elaborate (300 words or 1½ paper) : 5x10 = 50 marks (either/or type)

## **13. Award of Internal Assessment Marks**

Internal assessment marks for theory will be awarded based on the Marks obtained in the three Internal Assessment Tests. Internal assessment marks for practical will be awarded based on the candidate's regular performance in the practical area (wards or Operation Theater or CSSD) and one practical exam marks.

**PAPER 1**  
**BASICS OF ANATOMY & PHYSIOLOGY**

**OVERALL OBJECTIVE:** At the end of the programme the students will be able to understand the basic concepts of Anatomy and Physiology and develop desirable attitude and skill in application of this knowledge while providing care to the patients.

**SPECIFIC OBJECTIVES:**

The students will be able to

1. Explain the organization of Human body.
2. Describe the location, features and parts of systems of the body
3. Understand the function of various systems of the body

**Unit: 1**

Organization of Human Body: Definition & subdivisions of anatomy, anatomical position and terminology, regions and system of the body, cavities of the body and their contents. Size and shape of cells. Parts of cells, cell division. Tissues of the body, characteristics and function of different types of tissues, types of glands.

**Unit: 2**

The Skeletal System: Skeleton – Definition axial and Appendicular skeleton with names and location of bones Joints – Types of joints & kinds of movement possible Muscles – Definition, types of muscles, difference between striated & smooth muscle Functions of the muscles, bone and joints.

**Unit: 3**

The Nervous System: Subdivisions of nervous system, brain - location, external features and functions of brain & spinal cord, location, features, functions of the sense organs.

**Unit: 4**

Cardio Vascular and Respiratory System: The types & structure of blood vessels. Shape, structure of heart, blood supply to heart and functions of cardio vascular system. The name, location of organs of respiration and Physiology of respiration.

**UNIT: 5**

Other System of the Body: Name, parts and functions of alimentary canal and accessory organs Names of endocrine gland – location & features and function of the endocrine glands. Parts and functions of Kidney, Ureter, Bladder and Urethra.

**Reference:**

1. Anatomy & Physiology - Ross & Wilson
2. Anatomy & Physiology for Nursing & Health Care - Vijaya D. Joshy & Ashelete

**PAPER 2**  
**APPLIED MICROBIOLOGY**

**OVERALL OBJECTIVE:** At the end of the course the students will be able to acquire knowledge on the basic concepts of Microbiology and Microbes and develop desirable skill and attitude in sterilization and disinfection and other methods of prevention of infection.

**SPECIFIC OBJECTIVE:**

The students will be able to

- 1) Describe the Morphological features, sources and mode of transmission of various Organisms.
- 2) Explain concurrent and terminal disinfection methods.
- 3) Demonstrate skill in disinfection and sterilization of equipments, rubber goods and Glassware's.
- 4) Follow the standard precautions to prevent Blood borne infections.
- 5) Segregate biomedical waste materials and dispose it appropriately.

**Unit: 1**

Introduction: Definition & importance of microbiology for operation room technician. Classification of micro organisms. Brief morphological features of microbes. General properties of bacteria, viruses & fungus.

**Unit: 2**

Chain of Infection: Definition of infection Chain of infection – Sources of Microbes, routes of infection, and mode of spread Hospital acquired infection & Prevention of Hospital acquired infection Immunity & its types.

**Unit: 3**

Sterilization and Disinfection: Sterilization – Definition & Classification physical methods of sterilization, use of autoclave, preparation & sterilization of surgical packs. Disinfection - Definition & Classification, methods of disinfection. Principles of cleaning & disinfecting the rubber, goods, glassware's, packs, linens, equipments.

**Unit: 4**

Standard Precaution and Biomedical Waste Management: Collection and transport of specimen, standard precaution for prevention of blood borne infection - Collection of culture sources from theatre - Biomedical waste segregation & waste management.

**Unit: 5**

Environmental Hygiene: Maintenance of Ward Hygiene, Terminal and Concurrent Disinfection - Role of OR Technician in the maintaining Cleanliness of the Operation Room and Environmental Hygiene.

**REFERENCE BOOKS:**

- |                              |                     |
|------------------------------|---------------------|
| 1. Microbiology for Nurses   | - Stuck A.Viven     |
| 2. Microbiology              | - Michall J Pelczar |
| 3. General Microbiology      | - Hans G. Schlesal  |
| 4. Hand Book of Microbiology | - Bisen.P.S         |

**PAPER 3**  
**OPERATION ROOM MANAGEMENT**

**OVERALL OBJECTIVE:** At the end of the course the students will be able to acquire knowledge on the basic concepts of operation room technique and develop desirable skill and attitude in providing basic care to the patient before during and immediately after surgery.

**SPECIFIC OBJECTIVES:**

The students will be able to

1. Classify the surgeries
2. Prepare the operation theatre for surgery
3. Identify the instruments used for various surgeries
4. Assist the anesthesiologist
5. Follow standard precaution and waste management protocols in OR
6. Monitor the patient in recovery room
7. Maintain clean or sterile environment in OR

**Unit: 1**

Introduction to Operation Theatre Management: Organisation of Hospital - Organisation of operating rooms - Single and Multiple theatre units - Elective and emergency surgeries, Ambulatory surgery.

**Unit: 2**

Principles of Surgical Asepsis and Hygienic Operating Room: Carbolization and fumigation - Scrubbing, gowning, gloving - Preparation of sterile field. Preparation of skin for patient - Preparation of tables, equipments, instruments for surgery - Care of operating room – before, during & after surgery – Maintenance of Septic Theatre Special Precaution in handling patients with sepsis, blood borne infection – Hep.B, HCV, HIV etc - Cleaning and disinfection of the articles and OR (with special reference to HIV, HIZV & HCV Terminal disinfection of theatre).

**Unit: 3**

Operating Room Instruments and Maintenance: Basic instruments, sutures, needles, dressing - Operating room lighting – Specific instruments used in General Surgery, Gynaec, and Obstetric surgery, Orthopedic surgery, cardio thoracic surgery, neuro surgery & other surgeries.

**Unit: 4**

Assisting with Anaesthesia: Preparation of patient including transfer & positioning of the patient - Brief orientation to different types of anesthesia  
Assisting the anesthesiologist for induction of anaesthesia.

**Unit: 5**

Maintaining Patient Safety and Comfort or in: Maintaining patient safety & comfort in OR, Prevention of physical, electrical, chemical injuries/hazards to patient - Maintenance of interpersonal relationship, Orientation to legal & ethical issues involved in operation room technique

**REFERENCE BOOKS:**

- |  |                |
|--|----------------|
| 1. Introduction to Operating room Technique  | - Kandaswami   |
| 2. Theatre Technique                         | - Dixon Eileen |
| 3. Fundamentals of Operation Theatre Service | - T.K.Datta    |

**PAPER 4**  
**PRACTICAL: FOUNDATIONS IN MICROBIOLOGY**

Clinical posting in the CSSD, Lab and wards.

**Practicals To Be Completed**

1. Maintenance of ward cleanliness
2. Concurrent and terminal disinfection of patient units
3. Preparation and sterilization surgical packs
4. Cleaning and sterilization of rubber goods, glasswares and equipments

**PAPER 5**  
**PRACTICAL: OPERATION ROOM TECHNIQUES**

**Clinical Postings in:**

- Recovery room
- Operation room

**Procedure to be completed**

- ❖ Carbolization
- ❖ Fumigation
- ❖ Cleaning & disinfection of articles.
  - Packing articles for sterilization
  - Sterilization of equipments
- ❖ Setting up of tray for various surgery
- ❖ Assisting the scrub nurse/surgeon
- ❖ Scrubbing, gloving & gowning
- ❖ Laying tables
- ❖ Positioning
- ❖ Assisting with anaesthesiologist
- ❖ Observation & monitoring the patient in recovery room
- ❖ Terminal disinfection