



OPERATION THEATER TECHNICIAN

| PROGRAM STRUCTURE | |
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| Institutes | EduCareer Sindh Institute |
| Program Name | Operation Theater Technician |
| Program Type | Condensed |
| Duration | 1 Year |
| Eligibility | Matric (Science) |
| Attendance | 70% Attendance is compulsory |
| Requirement for Award of Diploma | The candidate must secure Fifty percent (50%) in Theory and Fifty percent (50%) in Practical to pass the exams. |
| Re Appearance in the Exams | The candidate can re appear for two attempts in the exams in case of failure. If Candidate passes theory or practical exams respectively, he/she will not be required to re appear in the exams of theory or practical respectively. |
| Grading System | The candidate, qualifying for the grant of Diploma shall be placed in following grades; A1 Grade – More Than 80% Marks A Grade – More than 70% Marks B Grade – More than 60% Marks C Grade – More than 50% Marks |
| Examination | Annual Exams announced by the SBTE. |



EduCareer Sindh Institute

| Operation Theater Technician –Marks Distribution | | | | |
|---|--------------------------------|---------------------|---|------------------------|
| No | Subject | Theory Marks | Clinical/ Practical Training Marks | Total Marks |
| 1. | Operation Theater Management | 100 Marks | 100 Marks | 200 Marks |
| 2. | Equipment and Devices | 100 Marks | 100 Marks | 200 Marks |
| 3. | Sterilization and Disinfection | 100 Marks | 100 Marks | 200 Marks |
| Total of 1 Year | | 400 Marks | 400 Marks | 800 Marks |

| Operation Theater Assistant – Training Plan | | | | | |
|--|---------------------------|----------------------------|--------------------|-----------------------|-------------------------------|
| Type of Training | Daily Training | Weekly Training | Total Weeks | Total Training | Total No of Months |
| Institute Training | 1 Hours | 5 Hours | 44 Weeks | 220 Hours | 11 Months |
| Clinical Training | 3 Hours | 15 Hours | 44 Weeks | 660 Hours | |
| Total | 4 Hours | 20 Hours | 44 Weeks | 880 Hours | |
| Vacations & Other Activities | | | | 1 Month | |
| Total of 1 Year | | | | 12 Months | |



| 1. Operation Theater Management – Curriculum | | | |
|---|--|----------------------------|---------------------------|
| Rationale | The Diploma Holder of Operation Theater has a very significant role in Management of Operation Room. He should have knowledge of various administrative procedures for smooth functioning of operation department. | | |
| Scope | The content will prepare student in the issues related to care of OT before, during and after a surgical procedure. The focus would also be on development of correct attitudes in OT and on economizing OT resources. | | |
| Learning Objectives | After completing this section the students will be able to: Understand the organization and functioning of Operation Theater Appropriately administer Operation Theater and manage its resources | | |
| | Workshop/ Lecture Title | Class Room Training | Practical Training |
| | 1. Introduction to operating department | 2 Hours | 5 Hours |
| | 2. Organization and design: the operation room suite, single and multiple theatre units | 6 Hours | 12 Hours |
| | 3. The surgical team: required attributes; OT etiquette and protocols | 6 Hours | 15 Hours |
| | 4. Duties of OT technician | 6 Hours | 13 Hours |
| | 5. Admission & transfer procedure | 6 Hours | 14 Hours |
| | 6. Essential documentation: informed consent forms | 6 Hours | 16 Hours |
| | 7. Care of operating room – before, during & after surgery | 8 Hours | 30 Hours |
| | 8. Lighting and ventilation requirements | 5 Hours | 16 Hours |
| | 9. Humidity and heating requirements | 5 Hours | 14 Hours |
| | 10. Electrical and fire safety | 5 Hours | 14 Hours |
| | 11. Prevention of physical, electrical, chemical injuries/hazards to patient | 7 Hours | 24 Hours |
| | 12. Tissue Disposal | 7 Hours | 16 Hours |
| | 13. Economizing theater resources | 7 Hours | 11 Hours |
| Total Teaching Hours | | 70 Hours | 200 Hours |
| | | 270 Hours | |



| 2. Equipments and Devices - Curriculum | | |
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| Rationale | The Diploma Holder of Operation Theater has the responsibility of handling and maintaining various equipments available in the operation theater. He must, therefore, possess knowledge and skills to manage such equipment and devices. | |
| Scope | The content will provide a thorough understanding of the machinery employed in OT; this will also include maintenance and minor repairs of this machinery. | |
| Learning Objectives | After completing this section the students will be able to: <ul style="list-style-type: none"> • Conduct a comprehensive and appropriate equipment check. • Identify and take appropriate action when confronted with equipment- related malfunctions, and maintain service records | |
| Workshop/ Lecture Title | Class Room Training | Practical Training |
| 1. Electro-medical / electrosurgical equipment used in O.T. Use and care of electronic equipment – grounding system | 10 Hours | 30 Hours |
| 2. O.T. lights: uses, types, lamps etc; shadow less lighting – features, types; direct, semi direct, indirect lighting; emergency lighting | 5 Hours | 15 Hours |
| 3. Monitoring equipments: cardiac monitors, pulse oxymeter | 10 Hours | 30 Hours |
| 4. Defibrillators | 10 Hours | 30 Hours |
| 5. Electrosurgery: structure, block diagram, types; safety precautions; bipolar diathermy machines; harmonic scalpel; LigaSure | 10 Hours | 30 Hours |
| 6. Fiber-optic endoscopy: introduction, types, procedures and care of instruments | 5 Hours | 14 Hours |
| 7. Operating microscopes: principle, parts, use and care | 5 Hours | 14 Hours |
| 8. Gas Cylinders; medical gas pipeline systems & manifold room | 5 Hours | 14 Hours |
| 9. Suction machines | 5 Hours | 17 Hours |
| 10. Handling, fixing and troubleshooting of equipments | 10 Hours | 36 Hours |
| Total Teaching Hours | 75 Hours | 230 Hours |
| | 305 Hours | |



| 3. Sterilization and Disinfection – Curriculum | | |
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| Rationale | Maintaining utmost asepsis is the foundation of modern surgery. The OT Technician should be well versed with different techniques for maintaining an infection free OT environment and ensuring sterilization of instruments used during the surgical processes. | |
| Scope | The content will cover the concepts of infection, cross-infection and asepsis. The student will build upon the knowledge gained during the core course and will be enabled to employ different sterilization and asepsis techniques in appropriate manners. | |
| Learning Objectives | After completing this subsection, the students will be able to: <ul style="list-style-type: none"> • Taking precautions to prevent the spread of infection • Ensuring the cleaning of the Operation Theatre prior to operations • Cleaning, packing, sterilization, maintenance and storage of instruments and other equipment used in Operation Theatre • Manage sterile stock | |
| Workshop/ Lecture Title | Class Room Training | Practical Training |
| 1. Definition of cross infection; modes and types | 5 Hours | 15 Hours |
| 2. Principles of microbial control: prevention of cross infection to the patient and surgical team | 5 Hours | 15 Hours |
| 3. Some common infective conditions; gangrene and tetanus – causes and prevention | 5 Hours | 15 Hours |
| 4. Definition of sterilization, disinfection, antiseptic, aseptic, carrier state | 10 Hours | 26 Hours |
| 5. General principles of sterilization; types of sterilizations Sterilization by gaseous chemicals | 5 Hours | 15 Hours |
| 4 Sterilization by gamma radiation & Chemical sterilization & disinfection; use of different anti- septic chemotherapeutic agents | 5 Hours | 14 Hours |
| 6. Sterilization by filtration & Sterilization by dry and moist heat | 5 Hours | 14 Hours |
| 7. Designing sterilization process; methods of instrument sterilization; preparation & packing | 5 Hours | 14 Hours |
| 8. Autoclave for instrument, linen and perishable items; working principle, main parts and maintenance | 5 Hours | 14 Hours |
| 9. Environmental disinfection: cleaning and disinfection of Operating Room | 5 Hours | 14 Hours |
| 10. Detergents, types and uses | 4 Hours | 16 Hours |
| 11. Scrubbing and its methods | 4 Hours | 16 Hours |
| 12. Central sterile supply department (CSSD) | 4 Hours | 14 Hours |
| 13. Handling of infectious hospital waste | 4 Hours | 14 Hours |
| 14. Self-protection; gown, gloves, shoes, dress | 4 Hours | 14 Hours |
| Total Teaching Hours | 75 Hours | 230 Hours |



| 3. Sterilization and Disinfection – Curriculum | |
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| | 305 Hours |
| Clinical Attachment | |
| The student will get a rotation amongst them. General Surgery Minor OT Emergency Obstetrics & Gynecology ENT/ Ophthalmology Orthopedics Anesthesia ICU, Sub-specialties | |
| Practical Notebook | |
| Students will maintain a record of their attachment in the ‘Practical Note Books’ (one for each section), the last portion of which would be designed as a ‘Log Book’ which shall be a work diary and record. Special mention shall be made of the procedures, if any, conducted by the candidate. This diary shall be scrutinized and certified by the Head of the Department and Head of the Institution, and presented in the practical /viva examination. | |
| Reference Books | |
| <ol style="list-style-type: none">1. Handbook of Operation Theatre Techniques: Publisher, Jaypee2. Operating Room Technique - Berry and Kohn's; Publisher: Mosby Elsevier Health Science Operating Room Technique – Raymond John Brigden3. The Operating Room Aide; Publisher: Career Pub4. Surgical Nursing and Technique: A book for nurses, dressers, house surgeons – Charles Plumley: Childe5. Operation Theater Guide, Usman Publications Lahore | |