Curriculum

for the

Two Years’ Post Matric Competency Based

Diploma in

Operation Theater Technology

(New Scheme)

Punjab Medical Faculty

2013
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Preface

After introduction of the new service structure for AHPs in 2012 the qualification requirement for entry in service has been changed to a diploma of two years’ duration. This decision has necessitated the development of curricula for the new scheme of studies. The evolving health needs of the community, exponential advances in medical and allied technologies and changes in health services provision, functions and structure also demand continual and responsive changes in education and training programs meant for AHPs. The revised curricula would carry out the following important functions:

- link pre-service education and training with actual tasks AHPs have to perform after being employed, especially in the public sector
- modernize training program by weeding out subjects that have become obsolete and including subjects that are currently considered essential
- provide clarity on subjects and topics to be taught delimiting the breadth and depth of teaching
- give clarity to examiners on what is to be tested and how
- stimulate critical faculties of both teachers and students to conceptualize topics rather than memorizing them.

Focus of the new curricula would be on integration of tasks and multi-skilling of students. Thus there would be a common knowledge base for all courses in the form of a Core Course which would provide insight into essential technical knowledge besides providing base for development of the education for Allied Health Sciences up to post graduate level.

The new curriculum for Operation Theater Technology replaces and augments the previous curricula for Operation Theater Assistant and Dialysis Technician. The goal of this document has been to outline a common body of knowledge that is essential for entry-level surgical technicians. Combined with the Core Course it will provide a broad knowledge base for the technicians and provide opportunities for practical skill development in the relevant field. This needs based curriculum places practical skills development at high priority. Content and apprenticeship experiences is designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of surgical procedures.

There will be two papers to assess the knowledge gained and two practical / viva examination to assess the concepts and skills. The papers are:

1. Paper I: Operation Theater Management; Equipments and Devices; Sterilization and Disinfection
2. Paper II: Surgical Assistance; Patient Care; Anesthesia Assistance
General Outline

Aim of this curriculum is to equip students with the relevant professional knowledge, skills and techniques to enable them to apply their acquired expertise for efficient health service delivery. At the end of training the student should be able exhibit the following general and specific competencies:

A. General learning objectives
   1. Act upon his / her job description ethically keeping in mind the requirements of community and people at large.
   2. Demonstrate empathy and humane approach towards communities and exhibit interpersonal behavior in accordance with the societal norms and expectations.
   3. Demonstrate sufficient understanding of basic sciences related to the technology and be able to integrate such knowledge in his / her work.

B. Specific learning objectives:
   The job of Surgical Technician is maintenance of theater; preparation, sterilization and provision of OT instruments for surgical procedures; maintenance of OT equipment; assistance to surgeon, anesthetist and OT nurse during surgical procedures. Upon completion they will be able to:

   i. Know aseptic techniques including tasks and responsibilities of the Central Sterile Department and carry out sterile processing, including:
      - SOPs for asepsis, soiled item transportation, decontamination, sterilization, care of all surgical instruments, packaging processes, "flash sterilization", different types of sterilization methods

   ii. Choose and handle the right instrument for the specific procedure to be done
      - Prepare trolleys for various operations and ensure that all the instruments likely to be needed for the particular operation are available on the trolleys as per check list
      - Ensure that equipments / instruments are regularly checked for accuracy and any faults are reported

   iii. Render necessary help in operation as required by the surgeon, anesthetist and OT nurse
C. Distribution of Training Time

The two years’ program would be divided in three distinct parts (Papers). There will be a ‘Core Course’ which would be common for all technologies. The examination for this component will be taken at the end of first academic year. The teaching for specific aspect of this technology will be divided in two sections; examination for these will be held at the end of second academic year – however, teaching for specific techniques will start from the first year.

A typical training day for students at training institutions routinely comprises of five hours. Keeping a generous allowance of holidays and weekends, an academic year for students would be 200 days. Therefore, 1000 teaching hours would be available in 12 months. In the new scheme of studies, for the Core Course the proportion of classroom teaching and practical training (applied learning activities) would be 60:40; whereas this proportion for the specific techniques would be 40:60 and the time allocations for dividing teaching time between various topics, units and sub-units will be done accordingly as depicted below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Course</td>
<td>500</td>
</tr>
<tr>
<td>Section I (Paper I)</td>
<td>750</td>
</tr>
<tr>
<td>Section II (Paper II)</td>
<td>750</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2000</strong></td>
</tr>
</tbody>
</table>

The marks distribution for this diploma would be:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
</tr>
<tr>
<td>Core Course</td>
<td>100</td>
</tr>
<tr>
<td>Viva</td>
<td>100</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
</tr>
<tr>
<td>Section I</td>
<td>100</td>
</tr>
<tr>
<td>Section II</td>
<td>100</td>
</tr>
<tr>
<td>Practical / Viva Section I</td>
<td>100</td>
</tr>
<tr>
<td>Practical / Viva Section II</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>600</strong></td>
</tr>
</tbody>
</table>
D. Essential Teaching Requirements

I. Training requirements/instructional methodologies (Process)
   a. Teaching staff will be given in-service training as recommended by PMF from
time to time.
   b. Teachers will use a combination of interactive programmed instructions
   (non-IT), class teaching with exercises using audiovisual aids, mini-lectures,
group discussions, simulations and case studies as instructional/teaching
   methodologies.
   c. IT will be employed for teaching where necessary.
   d. A combination of English and Urdu languages will be used as medium of
   instruction.
   e. Teachers will encourage students to ask questions; they will encourage
debate and discussion in class to inspire and hone thinking skills of students.
   Students will be given the opportunity to engage in activities that promote
divergent thinking skills. Students will be encouraged to work independently,
as well as in small groups and as a whole class, to form creative associations
of ideas across discipline lines.

II. Practical learning component

As prime objective of the training program is to develop practical skills, an extended
clinical attachment is its essential part. The student will rotate amongst various
sections including different operation theaters, ICU and sterilization department
and his/her attendance will be recorded on a logbook to be signed by supervisors.
Teachers will ensure that students are given chance to practice activities under
supervision that are relevant to the topic being taught in class in order for them to
develop relevant practical skills.

The detail of specifications for the institution imparting education according to the
new scheme of studies, including the facilities for practical attachment, is available
in ‘New Affiliation Criteria’ for such institutions.

F Organization of Units of Curriculum

The different units presented in the subsequent sections would comprise of the
following components, not essentially in the sequence depicted below:
   a. Learning Focus (contents, hours, weightage for assessment)
   b. Rationale
   c. Scope
   d. Learning Objectives (aims and learning outcomes)
   e. Practical Learning Component (where applicable)
Revisions and Updating of Curriculum

The curricula are ever evolving organic documents. Regular reviews and revisions are, therefore, essentially required to keep them in pace with modern needs; topics that are required now might outlive their utility in a few years. Updating curricula therefore forms the basis for quality teaching as well as professional competence of technicians. This would be ensured by technology-wise panels of experts notified by the Health Department.
SECTION 1

(Paper I)

Unit 1  Operation Theater Management

Unit 2  Equipments and Devices

Unit 3  Sterilization and Disinfection
Unit I

Operation Theater Management

1. Rationale

The Operation Theatre Technician has a very significant role in management of Operation Room. He should have knowledge of various administrative procedures for smooth functioning of operation department.

2. 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.

3. Learning Objectives

After completing this section the students will be able to:

i. Understand the organization and functioning of Operation Theater

ii. Appropriately administer Operation Theater and manage its resources

... Continued
# Operation Theater Management

## Learning Focus

<table>
<thead>
<tr>
<th>Learning Focus</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Introduction to operating department</td>
<td>10</td>
</tr>
<tr>
<td>ii. Organization and design: the operation room suite, single and multiple theatre units</td>
<td>8</td>
</tr>
<tr>
<td>iii. The surgical team: required attributes; OT etiquette and protocols</td>
<td>8</td>
</tr>
<tr>
<td>iv. Duties of OT technician</td>
<td>4</td>
</tr>
<tr>
<td>v. Admission &amp; transfer procedure</td>
<td>4</td>
</tr>
<tr>
<td>vi. Essential documentation: informed consent forms</td>
<td>4</td>
</tr>
<tr>
<td>vii. Care of operating room – before, during &amp; after surgery</td>
<td>10</td>
</tr>
<tr>
<td>viii. Lighting and ventilation requirements</td>
<td>6</td>
</tr>
<tr>
<td>ix. Humidity and heating requirements</td>
<td>8</td>
</tr>
<tr>
<td>x. Electrical and fire safety</td>
<td>10</td>
</tr>
<tr>
<td>xi. Prevention of physical, electrical, chemical injuries/hazards to patient</td>
<td>6</td>
</tr>
<tr>
<td>xii. Tissue Disposal</td>
<td>6</td>
</tr>
<tr>
<td>xiii. Economizing theater resources</td>
<td>6</td>
</tr>
</tbody>
</table>

## Class Room Teaching

<table>
<thead>
<tr>
<th>Class Room Teaching</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

## Practical Attachments

<table>
<thead>
<tr>
<th>Practical Attachments</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>150</td>
</tr>
</tbody>
</table>

## Total Teaching

<table>
<thead>
<tr>
<th>Total Teaching</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>250</td>
</tr>
</tbody>
</table>

## Weightage for assessment

<table>
<thead>
<tr>
<th>Weightage for assessment</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>35</td>
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</tbody>
</table>
UNIT 2
Equipments and Devices

1. Rationale

The Operation Theatre Technician 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.

2. 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.

3. Learning Objectives

After completing this section the students will be able to:

i. Conduct a comprehensive and appropriate equipment check.
ii. Identify and take appropriate action when confronted with equipment-related malfunctions, and
iii. maintain service records

... Continued
### Equipments and Devices

<table>
<thead>
<tr>
<th>Learning Focus</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Electro-medical / electrosurgical equipment used in O.T. Use and care of electronic equipment – grounding system</td>
<td>10 hours</td>
</tr>
<tr>
<td>ii. O.T. lights: uses, types, lamps etc; shadow less lighting – features, types; direct, semi direct, indirect lighting; emergency lighting</td>
<td>8 hours</td>
</tr>
<tr>
<td>iii. Monitoring equipments: cardiac monitors, pulse oxymeter</td>
<td>8 hours</td>
</tr>
<tr>
<td>iv. Defibrillators</td>
<td>6 hours</td>
</tr>
<tr>
<td>v. Electrosurgery: structure, block diagram, types; safety precautions; bipolar diathermy machines; harmonic scalpel; LigaSure</td>
<td>15 hours</td>
</tr>
<tr>
<td>vi. Fiber-optic endoscopy: introduction, types, procedures and care of instruments</td>
<td>8 hours</td>
</tr>
<tr>
<td>vii. Operating microscopes: principle, parts, use and care</td>
<td>4 hours</td>
</tr>
<tr>
<td>viii. Gas Cylinders; medical gas pipeline systems &amp; manifold room</td>
<td>3 hours</td>
</tr>
<tr>
<td>ix. Suction machines</td>
<td>3 hours</td>
</tr>
<tr>
<td>x. Handling, fixing and troubleshooting of equipments</td>
<td>10 hours</td>
</tr>
</tbody>
</table>

### Class Room Teaching

- **75 hours**

### Practical Attachments

- **125 hours**

### Total Teaching

- **200 hours**

### Weightage for assessment

- **25%**
**Unit 3**

**Sterilization and Disinfection**

1. **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.

2. **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.

3. **Learning Objectives**

   After completing this subsection, the students will be able to:
   
   i. Taking precautions to prevent the spread of infection
   ii. Ensuring the cleaning of the Operation Theatre prior to operations
   iii. Cleaning, packing, sterilization, maintenance and storage of instruments and other equipment used in Operation Theatre
   iv. Manage sterile stock

   ... Continued
### Sterilization and Disinfection

#### Learning Focus

<table>
<thead>
<tr>
<th>Learning Focus</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Definition of cross infection; modes and types</td>
<td>8 hours</td>
</tr>
<tr>
<td>ii. Principles of microbial control: prevention of cross infection to the patient and surgical team</td>
<td>7 hours</td>
</tr>
<tr>
<td>iii. Some common infective conditions; gangrene and tetanus – causes and prevention</td>
<td>7 hours</td>
</tr>
<tr>
<td>iv. Definition of sterilization, disinfection, antiseptic, aseptic, carrier state</td>
<td>10 hours</td>
</tr>
</tbody>
</table>
| v. General principles of sterilization; types of sterilizations  
  a. Sterilization by gaseous chemicals  
  b. Sterilization by gamma radiation  
  c. Chemical sterilization & disinfection; use of different antiseptic chemotherapeutic agents  
  d. Sterilization by filtration  
  e. Sterilization by dry and moist heat | 20 hours |
| vi. Designing sterilization process; methods of instrument sterilization; preparation & packing | 10 hours |
| vii. Auto clave for instrument, linen and perishable items; working principle, main parts and maintenance | 8 hours |
| viii. Environmental disinfection: cleaning and disinfection of Operating Room | 8 hours |
| ix. Detergents, types and uses | 4 hours |
| x. Scrubbing and its methods | 4 hours |
| xi. Central sterile supply department (CSSD) | 5 hours |
| xii. Handling of infectious hospital waste | 5 hours |
| xiii. Self protection; gown, gloves, shoes, dress | 4 hours |

#### Total Teaching

- **Class Room Teaching**: 100 hours
- **Practical Attachments**: 200 hours
- **Total Teaching**: 300 hours

#### Weightage for assessment

- **40%**
SECTION 2

(Paper II)

Unit 1  Surgical Assistance

Unit 2  Patient Care

Unit 3  Anesthesia Assistance
Unit 1

Surgical Assistance

1. Rationale

Providing assistance during surgical procedures is the prime duty of Operation Theater Technician. Therefore, the technician must understand the role and use of instruments & tools used for minor and major operations.

2. Scope

The student will be apprised about different types of surgical instruments and tools. Emphasis would be on development of skills for organizing and supplying instruments for minor and major procedures related to different branches of surgery

3. Learning Objectives

After completing this sub-section, the students will be able to:

i. Receiving the patient in to the department; lifting, transferring and positioning of patients
ii. Know the role of various instruments and their use in minor & major surgeries
iii. Preparing equipment and instrument sets for specific operations
iv. Providing supplies for the surgical team

... Continued
### Surgical Assistance

<table>
<thead>
<tr>
<th>Learning Focus</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Reception and preparation of patient for surgical procedure</td>
<td>6</td>
</tr>
<tr>
<td>ii. Classification of instruments and apparatus: disposable/non disposable</td>
<td>6</td>
</tr>
<tr>
<td>iii. General instruments: scalpel, scissors, forceps, knives, hooks, retractors</td>
<td>6</td>
</tr>
<tr>
<td>etc.</td>
<td></td>
</tr>
<tr>
<td>iv. Needles, ligature and suture materials: introduction, cat guts (preparation, sizes, handling), absorbable and non absorbable ligatures and sutures, natural materials (silk warm gut, silk threads, linen cotton their sizes and classes) Nylon, polyester, polyethylene, polyeprelepene, metallic wire, metal clips as sutures and as ligatures; storage and handlings of suture materials</td>
<td>12</td>
</tr>
<tr>
<td>v. Definitions of operations, position of the patient, types of incisions, general instruments used during elective and emergency operations related to surgical gastroenterology, gynecology &amp; obstetrics, urology, neurosurgery, oncology, cardiovascular surgeries, ophthalmology, ENT, orthopaedics, paediatric surgery, plastic surgery, and organ transplantation etc.</td>
<td>66</td>
</tr>
<tr>
<td>vi. Biopsy kits; care of biopsy specimen/ procedure for sending specimen for biopsy and fluid for culture: preservation, labeling, transport to Pathology dept</td>
<td>4</td>
</tr>
</tbody>
</table>

**Class Room Teaching**

- 100 hours

**Practical Attachments**

- 200 hours

**Total Teaching**

- 300 hours

**Weightage for assessment**

- 40%
Unit 2
Patient Care

1. Rationale
Being a member of surgical team, the Operation Theatre Technician must understand the basic principles of surgery. This would develop an understanding of rationale of different procedures s/he is assisting.

2. Scope
The content provides basic knowledge of common surgical conditions. It also gives understanding of care of patient before, during and after the surgical procedure. Special emphasis would be on first aid management and emergency life saving procedures.

3. Learning Objectives
After completing this unit, the students will be able to:
   i. Understand the common surgical conditions
   ii. Manage wounds and apply dressings
   iii. Provide first aid and emergency basic life care

... Continued
### Patient Care

#### Learning Focus

<table>
<thead>
<tr>
<th>Focus</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Introduction and evolution of surgery</td>
<td>4</td>
</tr>
<tr>
<td>ii. Common surgical conditions: ulcers, sinuses, fistulas, cysts, tumors</td>
<td>10</td>
</tr>
<tr>
<td>iii. Wound management: First Aid, Dressings/ Bandages</td>
<td>10</td>
</tr>
<tr>
<td>iv. Fracture: Splints, P.O.P</td>
<td>6</td>
</tr>
<tr>
<td>v. Introduction, sign, symptoms and first aid management of:</td>
<td>10</td>
</tr>
<tr>
<td>a. Hemorrhage</td>
<td></td>
</tr>
<tr>
<td>b. Burns</td>
<td></td>
</tr>
<tr>
<td>c. Shock</td>
<td></td>
</tr>
<tr>
<td>vi. Special precautions in handling patients with sepsis, blood borne infections – Hep.B, HCV, HIV etc</td>
<td>8</td>
</tr>
<tr>
<td>vii. Post-op care of patient</td>
<td>6</td>
</tr>
<tr>
<td>a. Position</td>
<td></td>
</tr>
<tr>
<td>b. Monitoring</td>
<td></td>
</tr>
<tr>
<td>c. Recovery</td>
<td></td>
</tr>
<tr>
<td>d. Transportation</td>
<td></td>
</tr>
<tr>
<td>e. IV line and drain care</td>
<td></td>
</tr>
<tr>
<td>viii. Blood Transfusion: Blood storage, grouping, cross matching, blood products etc; common blood reactions</td>
<td>8</td>
</tr>
<tr>
<td>ix. Fluids, infusions (chemistry, indication and complications)</td>
<td>6</td>
</tr>
<tr>
<td>x. Basic Life Support</td>
<td>10</td>
</tr>
<tr>
<td>a. Protection and maintenance of patient airway</td>
<td></td>
</tr>
<tr>
<td>• Natural or artificial respiration</td>
<td></td>
</tr>
<tr>
<td>• Assisted by emergency oxygen</td>
<td></td>
</tr>
<tr>
<td>b. The movement of blood through the beating of heart</td>
<td></td>
</tr>
<tr>
<td>c. The emergency measure of CPR</td>
<td></td>
</tr>
<tr>
<td>d. Automated external defibrillator or AED</td>
<td></td>
</tr>
</tbody>
</table>

#### Class Room Teaching

- Total: 90 hours

#### Practical Attachments

- Total: 165 hours

#### Total Teaching

- Total: 250 hours

#### Weightage for assessment

- 35%
Unit 3

Anesthesia Assistance

1. Rationale
Being a member of multi-disciplinary surgical team, the Operation Theater Technician is supposed to provide assistance to the anesthetist as well. This role is more significant in the environment of relative shortage of qualified anesthetists.

2. Scope
Content will cover the basics of anesthesia techniques. Students will be acclimatized with anesthesia related gadgetry and their skills will be developed for assisting the anesthetist. However, the actual administration of anesthesia will be out of bond for the technicians.

3. Learning Objectives
After completing this unit, the students will be able to:
   i. Identify and understand the use of anesthetic equipment
   ii. Be aware of various types of agents and drugs used during anesthesia
   iii. Caring for patient and assisting the anesthetist during procedures

... Continued
### Learning Focus

<table>
<thead>
<tr>
<th>i.</th>
<th>Introduction to Anesthesia Technology – types of anesthesia</th>
<th>10 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ii.</td>
<td>Role of Anesthesia Care Team – specific duties of OT Technician</td>
<td>4 hours</td>
</tr>
<tr>
<td>iii.</td>
<td>Anesthetic agents, types and uses</td>
<td>12 hours</td>
</tr>
<tr>
<td>iv.</td>
<td>Types &amp; use of sedative, hypnotic, pre-anesthetic and other groups of drugs</td>
<td>6 hours</td>
</tr>
<tr>
<td>v.</td>
<td>Patient preparation before anesthesia</td>
<td>6 hours</td>
</tr>
<tr>
<td>vi.</td>
<td>Stages of anesthesia; patient management during anesthesia</td>
<td>8 hours</td>
</tr>
<tr>
<td>vii.</td>
<td>Anesthesia machine – parts, block diagram etc.</td>
<td>8 hours</td>
</tr>
<tr>
<td>viii.</td>
<td>Emergency intubation equipment and techniques</td>
<td>5 hours</td>
</tr>
<tr>
<td>ix.</td>
<td>Set-up and use of complex anesthesia equipment</td>
<td>5 hours</td>
</tr>
<tr>
<td>x.</td>
<td>Maintenance of anesthesia equipment for proper functioning</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

### Class Room Teaching
70 hours

### Practical Attachments
130 hours

### Total Teaching
200 hours

### Weightage for assessment
25%
Practical Attachment

The extensive internship will reinforce the classroom learning and enable the student to understand how to handle the workload in different disciplines of surgical technology. It is this aspect of the course that will determine the level of professionalism students will display after employment. This period will be interspersed with learning of theory.

During the two year of this program the students will be placed in different operation theaters and related sections on a roster basis to gain practical experience in relevant areas under supervision of tutor technicians and the surgical instructors. If a particular specialty is not available in the hospital, collaboration with other hospitals will be sought to provide adequate experience to students.

On the availability of the following sections, the student will get a rotation amongst them.

- General Surgery
- Minor OT
- Emergency
- Obstetrics & Gynaecology
- ENT/ Ophthalmology
- Orthopaedics
- Anaesthesia
- ICU
- Sub-specialties

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.

The scope of practical attachment would be:

**A. IDENTIFICATION OF INSTRUMENTS AND PREPARATIONS OF TROLLEYS**

1. **Emergency**
   1. Laparotomy Set
   2. Thoracotomy Set
   3. Suprapubic Cystostomy
   4. Chest Intubation
   5. Venesection
   6. Appendectomy
   7. Fracture fixation
   8. Burr Hole
   9. Wound Debridement
ii. Elective
1. Cholecystectomy
2. Thyroidectomy
3. Herniotomy + Herniorraphy
5. Nephrectomy
6. Vesicolithotomoy
7. Prostatectomy
8. S.M.R
9. Tonsillectomy
10. Mastoidectomy
11. Cataract Surgery
12. Retinal Surgery
13. Orbital Surgery
14. Caesarian Section
15. Hysterectomy
16. Dilation and Currettage
17. Haemorrhoidectomy
18. Fistulectomy
19. Joint Replacement
20. Spinal + Epidural Block
21. Laparoscopic surgery (Trolley)

B. IDENTIFICATION OF MATERIALS
• Identification of different suture Material
  o Plain and chromic Catgut
  o Prolene
  o Vicryl
  o Polydioxanone
  o Silk
  o Nylon

• Different Type of Fluids
  o Isotonic Fluids -5% D/W
    - NaCl
    - D/S
    - Ringers

  o Plasma Expander
    - Haemaccel
    - Gelatundin
    - Albumin

• Hypodermic needles, syringes and cannulas
• Appliances
  - Endotracheal Tubes
  - Air Way
  - Ambu Bag
  - Maggill's Forceps
  - Nasogastric Tube
  - Foley's catheter
  - Intra-venous cannulae
  - Nelaton's Catheter
  - Tracheostomy Tube
  - Surgical Gloves
  - Proctoscope
  - Sigmoidoscope

C. STERILIZATION & ANTI SEPSIS
• Identification + use of different Antiseptic Solutions e.g Pyodine, Spirit, Cidex, Savalon etc.

D. BASIC HANDLING OF MACHINES / INSTRUMENTS
• Anesthesia
• Ventilator
• Diathermy
• Suction
• Monitors
  ▪ Delicate instruments
    • Proctoscope
    • Sigmoid scope
    • Gastro scope
    • Colonoscopy
    • Bronchoscope
    • Cystoscope
    • Laparoscope
RECOMMENDED BOOKS

1. Handbook of Operation Theatre Techniques: Publisher, Jaypee
2. Operating Room Technique - Berry and Kohn's; Publisher: Mosby Elsevier Health Science
3. Operating Room Technique – Raymond John Brigden
4. The Operating Room Aide; Publisher: Career Pub
5. Surgical Nursing and Technique: A book for nurses, dressers, house surgeons – Charles Plumley: Childe
Acknowledgments

Preparation of this new curriculum was indeed a gigantic task, especially in the very limited time available for this assignment. Its accomplishment would not have been possible without concerted efforts of many professional colleagues.

Grateful acknowledgement is hereby made to the following members of Panel of Experts for Operation Theater/Surgical Technology for their contributions and feedback:

1. Prof Masood Rashid (Convenor)  Prof of Surgery  AIMC
2. Prof. Mujeeb Ahmad  Prof of ENT  SIMS
3. Dr Sikandar Gondal  Asstt Prof  PGMI
4. Dr Fawad Karim  Senior Registrar  AIMC / JHL

I am also indebted to Dr Ahsan Mahmood Gondal, Registrar PMF for providing assistance in completion of this task.

August – 2013

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