Para-Medical Program

Specialization	**Anesthesia**
Course Number	**02801111**
Course Title	**Ambulatory Anesthesia**
Credit Hours	**2**
Theoretical Hours	**2**
Practical Hours	**0**

Brief Course Description:

- **This** course provides the anesthesia assistant technician student with basic information regarding the anesthesia outside operating rooms in addition to Day Case surgeries. The course will concentrate on the concepts, rules, and regulations controlling the ambulatory anesthesia and the use of medications in addition to managing the anesthesia tools and controlling patient's factors and the role of the anesthesia assistant technician in the process of medication administration.

Course Objectives:

At the end of this course the students should:

1- **Know preoperative considerations** regarding anesthesia outside operating rooms in addition to Day Case surgeries.
2- know the concepts, rules, and regulations controlling the ambulatory anesthesia
3- know the use of medications in addition to managing anesthesia tools and controlling patient's factors and the role of the anesthesia assistant technician in the process of medication administration

Detailed Course Description:

Time Needed	Unit Name	Unit Content	Unit Number
1.	**Introduction**	▪ Advantages of Ambulatory Anesthesia ▪ Contraindications ▪ Influence of age	
2.	**Preoperative considerations**	▪ Site considerations ▪ Surgical case selection ▪ Patient selection ▪ Laboratory evaluation ▪ Premedication	
3.	**Intraoperative considerations**	▪ Anesthetic techniques and pharmacological consideration – General anaesthesia – Regional anaesthesia – Nerve blocks, Bier's block – MAC and Conscious sedation – Monitoring ▪ Pharmacological considerations – Induction agents – Inhalational agents – Analgesic agents	
4.	**Postoperative considerations**	▪ PACU ▪ Complications – Nausea and Vomiting – Post operative pain ▪ Discharge criteria and Home readiness – Recovery room discharge criteria – PARS score	
5.	**Anesthesia outside operating room locations**	▪ Anesthetic techniques and management ▪ Usual procedures ▪ Places – ICU – Radiology (diagnostic, interventional and radiotherapy) – ER – GI Unit – Cardiac Unit – ECT – Ambulance and transfer of patients	

Teaching Methodology:

Lectures. Group discussion.Videos.Live patterns & samples. Practical applications. Field Visits (Industries).

Text Books & References:

References:

1. Clinical Anesthesiology, 4th edition.
2. Day case anesthesia and sedation, Whiteman, Blackwell, 1994
3. A Practice of Anesthesia, Wylie and Churchill-Davidson's, 7th edition

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801112**
Course Title	**Anesthesia Instruments**
Credit Hours	**(2)**
Theoretical Hours	**(2)**
Practical Hours	**(0)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding Anesthesia Instruments. The course will concentrate on Introducing these instrument to the student. It also concentrates on the way such instrument is built and its application in daily clinical practice. It also explains the way such instruments are maintained and make it ready to use.

- **Course Objectives:**

At the end of this course the students should:

1- Know the basic knowledge regarding Anesthesia Instruments.
2- Know the way such instruments are built and their application in daily clinical practice.
3- Be able to explain the way such instruments are maintained and made ready to get in use.

Detailed Course Description:

Time Needed	Unit Content	Unit Name	Unit Number
1.	**Introduction**	▪ Historical Background ▪ Disposable Elements – Cannulae – Injections – Needles ▪ Multiple Use Elements – Face Masks – Airways – Laryngoscopes – Forceps • Magill • Ellison ▪ Connections.	
2.	**Anesthesia Machines**	▪ General Design & Attached Equipments ▪ Medical Gases - Central supply - Cylinders ▪ Vaporizers ▪ Flowmeters ▪ CO2 Absorper ▪ Electronic Display Screen ▪ Types of Anesthesia Machines	
3.	**Anesthesia Circuits**	▪ Closed Systems ▪ Semi closed Systems ▪ Check Out List - Elements of Check Out List - Application • Daily • Weekly • Monthly	
4.	**Patient Monitors**	▪ Patient Monitors - ECG Machine - Machine - Leads	

❖ **تطبق هذه الخطة الدراسية اعتباراً من بداية العام الجامعي 2009/2008**

		Blood Pressure Monitors - Invasive - Non-Invasive Pulse Oximetery - Ear Probe - Finger Probe Capnography - Structure - Contents - Mechanism of Action - Expiry signs Bispectral Index (BIS) Monitor - Awarness - Mechanism - Leads Distribution DC Shock Machine - Structure & Principles - Peddles - Indication.	
5.	**Suction Machines**	Suction Machines - Types - Uses - Suction Tubes Regional Anesthesia Instruments - Spinal - Epidural - Intravenous(Bier's) - Peripheral Nerves - Nerve Stimulator • In Nerve Blocks • As Muscle Relaxant Action Monitoring	
6.	**Maintenance**	▪ Maintenance:- - Daily - Weekly - Monthly ▪ Rules of How to Handle Various Instruments	

Teaching Methodology:

- Lectures.Group discussion.Videos.Live patterns & samples.Practical applications.Field Visits (Industries).

Text Books & References:

References:

1. Principle of Measurement for the anesthetist. Stykes & Vickers,
2. Monitoring Practice in Clinical Anesthesia, J.S Gravenstein, David A. Poulus, J.B Lippincott

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801113**
Course Title	**Anesthesia Basic Physics**
Credit Hours	**(2)**
Theoretical Hours	**(2)**
Practical Hours	**(0)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding physics related to Anesthesia. The course will concentrate on the Gas laws, Fluid mechanics, and conditions regarding the gas exchange across lungs and the physical principles that control it. It also concentrate on how some of the machines operate like monitors in OR. It also gives some emphasis on the dangers encountered in OR and how to handle.

Course Objectives:

At the end of this course the students should :

1- Know the basic basic knowledge regarding physics related to Anesthesia.
2- Know the Gas laws, Fluid mechanics, and conditions regarding the gas exchange across lungs and the physical principles that control it.
3- Know how some of the machines operate like monitors in OR and the dangers encountered in OR and how to handle them

Detailed Course Description:

Time Needed	Unit Content	Unit Name	Unit Number
1.	**Gases**	Physics Laws Applications - Vaporizers - Cylinders & Pipes - Anesthesia Machine Fluids - Mechanics - Laws - Applications	
2.	**Gas Exchange**	Alveolo-capillary Exchange Diffusion Solubility Partition Coefficient	
3.	**Electricity**	Static Electricity - How it is formed - Hazards Alternating Currents - Laws - Use in Instruments - Dangers & Precautions Anesthetic Instruments - Design	
4.	**Temperature & Humidity**	- Safety Standards Regulatory Mechanisms Importance Measuring Instruments Diathermy - Unipolar	
5.	**Hazards**	- Bipolar Safety Standards in Operating Rooms Burns, Electrical Shock & Ventricular Fibrillation Fires & Explosions Gas Leak in OR.	

هذه الخطة الدراسية اعتباراً من بداية العام الجامعي 2009/2008 تطبق

Teaching Methodology:

- Lectures.Group discussion.Videos.Live patterns & samples.Practical applications.Field Visits (Industries)

Text Books & References:

References:

1. Physics for the Anesthetists, Makintosh, Epstein & Mushin.
2. A synopsis of Anesthesia, R.S. Atkinson, G.B. Tushman

Para-Medical Program

Specialty	**Anesthesia**
Course Number	**020801121**
Course Title	**Basics in Nursing Care**
Credit Hours	**(2)**
Theoretical Hours	**(1)**
Practical Hours	**(3)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding nursing care of the surgical patients. The course will concentrate on the contents, personnel, and conditions regarding the care of surgical patients in the evening of the operation and on the next morning until the patient once again in the floor. Steralization techniques are mentioned here also.

Course Objectives:

At the end of this course the students should be able to :

1- Know the basic knowledge regarding nursing care which should b provided to the surgical patients.

2- Know **Morning & Evening Care of Surgical Patients**

3- Know **the principles of Sterility & Sterilization**

4- Management of some activities of the nursing process

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
.1	**Introduction to Nursing Care**	▪ Definition of Nursing ▪ Historical Back Ground ▪ Inter-Personal relations ▪ Duties of the Nurse	
.2	**Management of some of the nursing process**	▪ Vital Signs ▪ Injections	
.3	**Patient Care**	▪ Preoperative Care & Preparation for Anesthesia & Surgery ▪ Receiving the Patient for Operation - Confirmation of the Procedure - Identity Check - Personal Items - Morning lab Tests checking - Overnight Fasting - Care of Pediatric Patients ▪ Recovery Room - Receiving Post Operative Patient - Monitoring - Analgesia - Patient Discharge.	
.4	**Morning & Evening Care of Surgical Patients**	▪ Morning Care ▪ Evening Care ▪ Nutrition ▪ Enemas	
.5	**Sterility & Sterilization**	▪ Sterility in OR ▪ Infection Control ▪ Disinfectants ▪ Methods of Sterilization	

Teaching Methodology:

- Lectures, handouts , Audiovisuals aids

Text Books & References:

References:

1. Fundamentals of Nursing, the art of science & Nursing care, 4th edition.
2. Fundamental Skills in Patient Care, 4th edition.
3. Handbook for Nurse Anesthesia, 1996

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801122**
Course Title	**Cardiopulmonary Resuscitation**
Credit Hours	**2**
Theoretical Hours	**1**
Practical Hours	**3**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding CPR. The course will concentrate on the various steps governing CPR weather basic life support or advance one; it also explains the role of certain medications in the process of CPR. It also defines some of the conditions that need immediate concern and explains the neonatal resuscitation.

Course Objectives:

At the end of this course the students should be able to:

1. Know the basic knowledge of how CPR is done
2. Know the conditions that need immediate concern and explains the neonatal resuscitation.

Detailed Course Description:

Time Needed	Unit name	Unit Content	Time Needed
1.	**Cardio-Respiratory Arrest**	▪ Causes of arrest ▪ Principles of Resuscitation - Basic Life Support (BLS). - Advanced Cardiac Life Support (ACLS). ▪ Drugs used in C.P.R. ▪ Termination of C.P.R. ▪ Outcome and further management ▪ D.N.R.	
2.	**Shock**	▪ Types ▪ Clinical picture ▪ Management.	
3.	**Oxygen**	▪ Cascade ▪ Hypoxia ▪ Oxygen Therapy - Indications - Methods - Hazards	
4.	**Drowning and Near-drowning**		
5.	**Neonatal Resuscitation**		

Teaching Methodology:

- Lectures

Text Books & References:

References:

1. Clinical Anesthesiology, 4th edition.
2. A Practice of Anesthesia, Wylie and Churchill-Davidson's, 7th edition.

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801131**
Course Title	**General Anesthesia I**
Credit Hours	**(3)**
Theoretical Hours	**(1)**
Practical Hours	**(6)**

Brief Course Description:

This course provides the anesthesia assistant technician student with basic knowledge regarding General Anesthesia. The course will concentrate on the preoperative evaluation and the three stages of anesthetic intervention, namely the induction, the maintenance and the emergence periods and finally the role of PACU in OR

Course Objectives:

At the end of this course the students should be able to :

1- **Know the principles of** General Anesthesia

2- **Know how** the preoperative evaluation is done and the three stages of anesthetic intervention, namely the induction, the maintenance and the emergence periods

3- **Know** the role of PACU in OR

Detailed Course Description:

Time Needed	Unit Name	Unit Content	Unit Number
1.	**Premedication**	▪ Patient Assessment - Preoperative visit - History and Physical Examination ▪ Drugs of Premedication - sedatives - antisialagogues - analgesics - own medications - antacids, anti-emetics - Others, antibiotics, SBE prophylaxis, etc ▪ Patient Preparation - rules of fasting - shaving and enemas - timing for the procedure and drugs administration - Drugs and lab tests required in the morning of surgery.	
2.	**Induction**	▪ Positions and Monitors ▪ Drugs - Intravenous - Inhalational ▪ Rapid sequence induction ▪ Complications encountered	
3.	**Endotracheal Intubation**	▪ Instruments ▪ Indications ▪ Contraindications ▪ Procedures of different techniques - Oral intubation. - nasal intubation	

		- Fiberoptic intubation. - Retrograde intubations. - Tracheostomy. - Others. ▪ Difficult intubation and management ▪ Complications encountered	
4.	**Maintenance of Anaesthesia**	▪ Monitoring - Non-Invasive - Invasive ▪ Drugs - Intravenous Hypnotics - Inhalational - Muscle relaxants - Analgesia - Medical Gases ▪ Techniques - Inhalational - TIVA - Pumps ▪ Complications encountered	
5.	**Emergence and Recovery**	▪ Termination of Anaesthesia ▪ Analgesia for Postoperative period ▪ Reversal of drugs' actions ▪ Extubation ▪ PACU ▪ Complications encountered.	

Teaching Methodology:

- Lectures. Group discussion.Videos.Live patterns & samples. Practical applications. Field Visits (Industries).

Text Books & References:

References:

1. Clinical Anesthesiology, 4th edition.
2. A Practice of Anesthesia, Wylie and Churchill-Davidson's, 7th edition.
3. Introduction to the practice of Anesthesia, Monte Lichtiger & Frank Moya

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801231**
Course Title	**General Anesthesia 2**
Credit Hours	**(3)**
Theoretical Hours	**(1)**
Practical Hours	**(6)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding General anesthesia for various conditions. The course will also concentrate on the complication encountered with each system it also mention some of the conditions that affect general anesthesia such as alcoholism, obesity and burns.

Course Objectives:

At the end of this course the students should be able to:

1- Know the general anesthesia for various conditions
2- Know the complications encountered with each system
3- Know the conditions that affect general anesthesia such as alcoholism, Obesity and burns.

Detailed Course Description:

Time Needed	Unit Name	Unit Content	Unit Number
1.	**Cardiovascular Anesthesia**	▪ Cardiopulmonary Bypass (CPB) ▪ Pacemakers ▪ Thoracic Anaesthesia - One Lung Anaesthesia - Thoracotomy - Bronchoscopy	
2.	**Head and Neck**	▪ Neurosurgical Anaesthesia ▪ ENT and Maxillofacial Anesthesia ▪ Ophthalmic Anesthesia	
3.	**Other Systems**	▪ Gastrointestinal Tract and Laparoscopic Anesthesia ▪ Obstetric, Gynaecologic and Urologic Anesthesia. ▪ Orthopaedic Anesthesia ▪ Oncologic Anesthesia	
4.	**Age Related**	▪ Pediatric Anesthesia ▪ Geriatric Anesthesia	
5.	**Other Topics**	▪ Alcoholism ▪ Obesity ▪ Burns ▪ Hypotensive Anesthesia	

Teaching Methodology:

- Lectures. Group discussion.Videos.Live patterns & samples. Practical applications.

Text Books & References:

References:

1. Clinical Anesthesiology, 4th edition.
2. A Practice of Anesthesia, Wylie and Churchill-Davidson's, 7th edition.
3. Oxford Text Book of Anesthesia

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801241**
Course Title	**Intensive Care Unit**
Credit Hours	**(2)**
Theoretical Hours	**(1)**
Practical Hours	**(3)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding Intensive Care Unit. The course will concentrate on the contents, personnel, and conditions regarding the control of ICU atmosphere, Instruments and with special emphasis on hazards encountered in ICU. It also defines some of the medical conditions that need ICU admission.

Course Objectives:

At the end of this course the students should be able to :

1- Know the Intensive Care Unit **as a whole**
2- Know the conditions of the intensive care unit and the management of its atmosphere
3- Know the Instruments and with special emphasis on hazards encountered in ICU
4- Know **how patients Care in the ICU is achieved**

Detailed Course Description:

Time Needed	Unit Content	Unit Name	Unit Number
1.	**Introduction**	□ Arrangement, Contents and Beds. □ Types of patients admitted to ICU. □ General Policy in ICU. □ Legal and Ethical issues	
2.	**Monitoring Systems**	□ Non-invasive □ Invasive	
3.	**Mechanical Ventilators**	□ Classification. □ Modes of Ventilation. □ Attachment and Weaning □ Drugs used in the ICU.	
4.	**Care of patients in the ICU**	□ Respiratory and Ventilator care. □ Nursing care. □ Feeding,Nutrition and TPN. □ Physiotherapy	
5.	**Special Issues**	□ Poisoning □ Brain Death	

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Text Books & References:

References:

1. Clinical Anesthesiology, 4th edition.
2. A Practice of Anesthesia, Wylie and Churchill-Davidson's, 7th edition.
3. The ICU Book, 3ed edition, 2006, Marino PL

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801251**
Course Title	**Internal Medicine & Anesthesia**
Credit Hours	**(3)**
Theoretical Hours	**(3)**
Practical Hours	**(0)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic information regarding the medical disease. The course will concentrate on the concepts, rules, and regulations controlling the way to handle medical diseases pre, intra and postoperatively.

Course Objectives:

At the end of this course the students should be able to :

1- Get an idea about the human diseases such as :" Respiratory System, Cardiovascular System, Endocrine System, Hepatic System and Central Nervous System

2- Know the concepts, rules, and regulations controlling the way to handle medical diseases pre, intra and postoperatively

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**Respiratory System:-**	Vitalogram Acute Infections - Upper Respiratory Tract Infections - Acute Epiglottitis - Pneumonia chronic Lung Diseases - Chronic Bronchitis. - Emphysema. - Restrictive Lung Diseases - Bronchial Asthma Pleural Diseases - Pleural Effusion. - Pneumothorax Others - Pulmonary Embolism. - Respiratory Failure and ARDS.	
2.	**Cardiovascular System**	Heart Failure Ischemic Heart Diseases - Atherosclerosis - Angina - Myocardial Infarction Hypertension	
3.	**Endocrine System**	Pituitary Gland Thyroid Gland. Parathyroid Glands Adrenal Glands. Pancreas	

4.	**Hepatic System**	□ Jaundice. □ Hepatitis □ Renal System:- - Renal Stones - Acute Renal Failure - Chronic Renal Failure - Acid-Base balance.	
5.	**Central Nervous System**	□ Intracranial Pressure. □ Trauma and GCS □ Haemorrhage	

Teaching Methodology:

- Lectures. Group discussion.Videos.Live patterns & samples. Practical applications. Field Visits (industries).

Text Books & References:

References:

1. Davidson's Principles and practice of Medicine, John McLeod
2. Clinical Anesthesiology, 4th edition.
3. A Practice of Anesthesia, Wylie and Churchill-Davidson's, 7th edition

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801232**
Course Title	**Local & Regional Anesthesia**
Credit Hours	**(2)**
Theoretical Hours	**(1)**
Practical Hours	**(3)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding local & regional anesthesia. The course will concentrate on the concepts, rules, and regulations controlling local & regional anesthesia and the use of medications in addition to managing the anesthesia tools and controlling patient's factors and the role of the anesthesia assistant technician in the process of instruments knowledge and preparations

Course Objectives:

At the end of this course the students should be able to:

1- Have an idea of local and regional anesthesia
2- Know the rules, and regulations controlling local & regional anesthesia and the use of medications
3- Know how to manage the anesthesia tools
4- Realize the role of the anesthesia assistant technician in the process of instruments knowledge and preparations

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**Introduction**	▪ Theories of L.A. action ▪ Pharmacokinetics & Pharmacodynamics ▪ Structure activity relationship	
2.	**General Principles**	▪ Pharmacology of L.A. Drugs ▪ Classification ▪ Aesthetic management of different techniques.	
3.	**Regional Anesthesia**	▪ Spinal Anesthesia ▪ Epidural Anesthesia ▪ Caudal Anesthesia	
4.	**Plexuses Blocks**	▪ Upper limb Blocks ▪ Lower limb Blocks	
5.	**Peripheral Nerves Blocks**	▪ Intravenous(Bier's) Block ▪ Upper limb nerves' Blocks ▪ Lower limb nerves' Blocks	
		▪ Intercostal nerves' Blocks ▪ Penile Block ▪ Vasoconstrictors	

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Teaching Methodology:

- Lectures. Group discussion.Videos.Live patterns & samples. Practical applications. Field Visits (Industries).

Text Books & References:

Text Books:

References:

1. Regional Anesthesia, W. Hoerster, H. Kreuscher and M. Zenz, 4th edition.
2. Clinical Anesthesiology, 4th edition.
3. A Practice of Anesthesia, Wylie and Churchill-Davidson's, 7th edition.

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801242**
Course Title	**Operating Rooms**
Credit Hours	**(3)**
Theoretical Hours	**(1)**
Practical Hours	**(6)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding operating rooms. The course will concentrate on the contents, personnel, and conditions regarding the control of OR atmosphere, sterility and scavenging systems with special emphasis on hazards encountered in OR. It also defines the duties of each worker in the area and the interpersonal relationships and their relevance to team work

Course Objectives:

At the end of this course the students should be able to :

1- Have complete knowledge of operating rooms
2- Know the principles of the patient receiving in the holding area
3- Get accustomed with the contents, personnel, and conditions regarding the control of OR atmosphere, sterility and scavenging systems
4- Realize hazards encountered in OR.

Detailed Course Description:

Unit Number	Unit Name	Unit Name	Time Needed
1.	**Introduction**	▪ History and Development ▪ Construction and Design of OR ▪ Contents ▪ Rules in ORs ▪ Medical Gases in OR	
2.	**The Patient**	▪ Receiving the patient in the holding area ▪ Procedures to be confirmed ▪ Assessment - Operation List - Patient ID identification - Patient evaluation - Chart Review ▪ Transport	
3.	**The Team**	▪ Persons and Duties - Anaesthesia team - Surgical team - Nursing team ▪ Teams Interactions ▪ Incident Reporting ▪ Continuous Medical Education within OR	
4.	**OR Environment**	▪ Sterlity - Personnel - OR - Instruments - Surgical field - Anesthetic Instruments and Circuits ▪ Atmosphere	

		- Temperature - Humidity - Ventilation ▪ Pollution and Scavenging - Anesthetic Gases - Disinfectants	
5.	**Hazards**	▪ Drugs ▪ Electricity and Equipments Standards ▪ Cautaries - Unipolar - Bipolar ▪ Fires and Explosions ▪ Infections ▪ Blood Products ▪ Surgical Incidents - Needles - Blades ▪ Laser ▪ Prevention and Management	

Teaching Methodology:

- Lectures. Group discussion.Videos.Live patterns & samples. Practical applications. Field visits (industries).

Text Books & References:

References:

1. Clinical Anesthesiology, 4th edition.
2. A Practice of Anesthesia, Wylie and Churchill-Davidson's, 7th edition

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020801151**
Course Title	**Pain Management**
Credit Hours	**(2)**
Theoretical Hours	**(1)**
Practical Hours	**(3)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding causes of acute pain and chronic pain and the ways to treat them it also mentions the postoperative pain causes and management. It also emphasizes the labor pain and the way to deal with it.

Course Objectives:

At the end of this course the students should be able to :

1- Know the causes of acute pain and chronic pain

2- Know the ways to treat pain and how to deal with it

Detailed Course Description:

Time Needed	Unit Name	Unit Content	Unit Number
1	**Introduction**	▪ Receptors, Nerve Fibers, Neurotransmitters and Modulation ▪ Pathways ▪ Theories of Pain Perception ▪ Pain Terminology	
2	**Methods of Treatment**	▪ Main Groups of drugs - Opioid. - NSAID's ▪ Non-analgesic drugs ▪ Non-pharmacological methods.	
3	**Acute Pain**	▪ Definition and Causes. ▪ Body Response ▪ Management ▪ Chronic Pain - Definition and Classification. - Body Response - Management	
4	**Postoperative Pain**	▪ Variation of Analgesic Requirements. ▪ Management. ▪ Labor Pain - Stages of Labour - Management. - Epidural Analgesia	
5	**Pain Clinic**	▪ Pain Assessment. ▪ Conditions Referred to pain clinic ▪ Management ▪ Neural Blocks	

Teaching Methodology:

- Laboratory

Text Books & References:

References:

1. Acute Pain, Graham Smith, & Benjamin Cavino
2. The control of Chronic Pain, Sampson Lipton
3. Clinical Anesthesiology, 4th edition.
4. A Practice of Anesthesia, Wylie and Churchill-Davidson's, 7th edition

Para-Medical Program

Specialization	**Anesthesia**
Course Number	**020800151**
Course Title	**Surgical Principles**
Credit Hours	**(2)**
Theoretical Hours	**(1)**
Practical Hours	**(3)**

Brief Course Description:

- This course provides the anesthesia assistant technician student with basic knowledge regarding the surgical patient. It sheds light on surgical conditions encountered in floor and OR, with special emphasis on infection control in OR. Multi trauma patients are mentioned with the ways to handle them effectively

Course Objectives:

At the end of this course the students should be able to :

1- Know Surgical Principles, Surgical Instruments and Operating Tables
2- Know **Emergency and Elective Surgery**
3- **Multiple Trauma Patients and how** Assessment t is done

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
.1	**Introduction**	6. Surgical Principles 7. Gowns 8. Sterilization 9. Surgical steps 10. Surgical Instruments:- 11. Forceps 12. Scissors 13. Sutures 14. Operating Tables:- – Movements. – Illumination	
.2	**Surgical diseases**	Infections. Abscesses Wounds and Ulcers. Burns. Congenital Anomalies	
.3	**Tumor**	Brain Lungs. Gynecologic Urologic. Breast Prostate Orthopedic	
.4	**Emergency and Elective Surgery**	Classification Patient management Surgical Operations:- – Fractures – Chest – Obstetric – Head and Neck – Abdomen – Genito-urinary	

.5	**Multiple Trauma Patients**	▪ Introduction ▪ Assessment ▪ Management	

Teaching Methodology:

Text Books & References:

References:

1. Basic Clinical Surgery for Nurses& Medical Students, John Farland & others.
2. The Principles & Practice of Surgery for Nurses & Allied Professions, Ellison Nash

Para-Medical Program

Specialization	**Anesthesia**
Course Number	020801291
Course Title	**Field Training**
Credit Hours	**(3)**
Theoretical Hours	**(0)**
Practical Hours	**(8 weeks)**

Brief Course Description:

- This course provides the Anesthesia and Recovery students with basic training regarding occupational ethics, operation rooms annexes, importance of sterilization, how to deal with special instruments, and patient reception and supervision before Anesthesia. Moreover, it provides the students with the knowledge regarding medical history & patient preparation and the way to deal with him on operation table. The course will concentrate on the student practical training, especially on giving drugs, clinical observation, instruments control, filling anesthesia forms and the surgeries name in common and their emergency diagnosis. and training students on the supervising of the Trachea and tabulation, to be able later on to manage doing veno – Catheterization. It also concentrates on the training students on how patient recovery is done, mostly on the ideal supervision after surgery, and how to transfer patient to I.C.U. Moreover this course will provide the student with the knowledge on checking the readiness of the instruments of anesthesia and the control of these instruments while working on patient.

Course Objectives:

At the end of this course the students should:

1- Know occupational ethics and how to use them in practice.
2- Know methods of patient preparation and dealing with him on operation able.
3- Be able to give drugs through I.V and inhalation.
4- Be able to fill anesthesia forms.

Detailed Course Description:

Time Needed	Unit Name	Unit Content	Unit Number
1.		▪ Occupational Ethics. ▪ To know operation rooms & Annexes, and to know the importance of sterilization and cleanliness. ▪ Dealing with Anesthesia Instruments. ▪ To know operation rooms. ▪ To know basic knowledge regarding Anesthesia instruments and medical papers. ▪ To know occupational hierarchy of operations staffs and how to deal with staffs.	
2.		▪ Patient reception and observation before Anesthesia ▪ Patient reception. ▪ Patient reception. ▪ To know basic knowledge regarding medical observation Patient medical history. ▪ Application of Anesthesia instruments. ▪ Patient preparation ▪ Dealing with Patient on operation table, and knowing the positions on operation table. ▪ Medical observation ▪ To assist in patient preparation and dealing with him perfectly from practical points of view.	

3.		▪ Giving drugs. ▪ Clinical observation and instruments control. ▪ Filling Anesthesia forms. ▪ Acquaintance with surgeries names and their common and emergency diagnosis. ▪ Training on how to manage giving drugs as inhalation and through I.V. ▪ Training on how to manage instrumental and clinical monitoring when giving drugs. ▪ To be able to manage Anesthesia forms.	

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Time Needed	Unit Name	Unit Content	Unit Number
4.		▪ Supervise trachea training process. ▪ Apply tracheal tabulation. ▪ Apply Veno – catheterization process. ▪ Patient recovery methods ▪ Patients supervise after surgery. ▪ Patient Transfer to I.C.U. -Perfectly do Veno –catheterization. -Perfectly do tracheal intubations. -Perfectly do recovery processes after all surgery types and emergency patients. -Closed patient observation after surgeries, specially the major ones. -Patient medical care during transferring him to I.C.U. -Save patient transfer to R.R or I.C.U.	
5.		▪ Check anesthesia instrument before starting anesthesia. ▪ Patient monitoring after instruments installation. -How to prepare and use anesthesia instruments and circuits. -Monitoring manually and automatically. -Blood pressure. -E.C.G.	

6.		▪ Training in recovery room and I.C.U: -Recovery room skills. -I.C.U.skills	

Teaching Methodology:

1. Practical training inside operation room.
2. Group Discussion.
3. Reports.