

Advanced Airway Management

This course is designed to integrate comprehensive knowledge of the advanced skills of anaesthetic airway management and to provide the students with the knowledge, and background necessary to be a professional healthcare provider in dealing with situations of difficult airway.

Course Main Objective(s)

1. Acquire the basic principles of airway management.
2. Brief anatomy of airway
3. Assessment of Difficult airway.
4. Difficult airway terminology.
5. Drugs and various adjuncts used for securing a difficult airway.
6. Methods for securing a difficult airway electively and in emergency situations.
7. Advanced management of securing a difficult airway.
8. Guidelines, algorithms associated with airway difficulty.

Anesthesia Laboratory 1

Course general Description

A state-of-the-art laboratory and anaesthesia simulator will prepare the student for the usage and complete understanding of anaesthesia workstation and practice of anaesthesia. Students will apply their didactic knowledge to scenarios on the anaesthesia simulator. Patient modalities are explored, such as pulse oximetry, scenography, and blood pressure monitoring systems. Laboratory experiments will develop the students understanding of anaesthesia delivery systems, various types of breathing circuits, fresh gas flow effect, theory of dilutional methods of cardiac output monitoring, relations between Mean circulatory filling pressures and Central venous pressure. A vascular sonography lab will allow a unique and comprehensive understanding of trans-esophageal and trans-thoracic echocardiography, cerebro-vascular testing, and venous and peripheral arterial testing.

Anesthesia Review -1

The course emphasizes about the hazards of anaesthesia machine and breathing systems, ventilators, circle system, Face masks and airways, laryngoscopes, tracheal tubes and associated equipment's, Lung isolation devices, devices managing the difficult airways, gas monitoring, airway

volumes, flows and pressure, temperature control equipment, cleaning and sterilization.

Course Main Objective(s)

By the end of this course, students will be able to:

1. Know about of Preoperative preparation for different forms of anaesthesia.
2. Know intraoperative pulmonary mechanics, blood gases transport and management.
3. To understand and find applicability for Intravenous fluids and transfusion practices in OT's
4. Have a knowledge of Defibrillators and electrical safety in OT.

Manage patients in Recovery area.

Clinical Anaesthesia – 2

The course contains an emphasized study; hazards of anaesthesia machine and breathing systems, ventilators, circle system, Face masks and airways, laryngoscopes. Tracheal tubes and associated equipment. Lung isolation devices. Devices managing the difficult airways. Gas monitoring, airway volumes, flows and pressure. Temperature control equipment. Cleaning and sterilization.

Course Main Objective(s)

By the end of this course, students will be able to:

1. Know about of hazards of anesthesia machine and breathing systems.
2. Know about ventilator settings and parts.
3. Know about simple tools for airway management (face masks, oral & nasal airways.)
4. Know about tracheal intubation and associated equipment's and method of lung isolation

BASIC PATIENT MONITORING & INSTRUMENTS

The student must gain adequate knowledge of basics of minimum mandatory anesthetic monitoring and to acquire skills for their maintenance and to know about their applications and any troubleshooting

Course Main Objective(s)

- 1- Identify and use the basic monitoring tools and equipment in and out of

operating rooms.

2- Able to maintain and do troubleshooting of different monitoring gadgets and equipment used in anesthesia.

ADVANCED PATIENT MONITORING AND INSTRUMENTS

This course is designed to integrate comprehensive knowledge of the basics of anesthetic monitoring and to provide the students with the skills, knowledge, and background necessary to be a professional healthcare provider in dealing with minimum mandatory monitoring gadgets.

Course Main Objective(s)

By the end of this course, student must be able to

1. Use various monitoring gadgets
2. Understand the basic terminology related to monitoring.
3. Interpret the Pulse oximetry, capnogram, ECG, temperature, Blood Pressure etc.
4. Should be able to use & maintain advanced monitoring gadgets like TEE and other point of care devices.
5. Monitor Peripheral neuromuscular function monitoring.
6. Use and monitor various neurological monitors like BIS sensor.

Practicum seminar in anesthesia practices : Course Code: ANS -3241

Course general Description The course contains important topics related to anesthesia and intensive care and are necessary in acquiring the skills of anesthesia technicians. These topics include Threatened cardiac complications under G.A. such as V.T., V.F., Pulse less electrical activity, etc. Using of nerve stimulator to evaluate the residual muscle relaxant, total intravenous anaesthesia, TCA, airway management during shared airway surgeries, venous thrombosis – prevention, treatment, and risks, intravenous regional anesthesia (Biar block), the management of intraoperative hypothermia, hypotensive anesthesia technique, using of defibrillator during CPR.

Course Main Objective(s)

This course aims to study the important topics related to anaesthesia management such as:

- Airway management during shared airway surgeries.
- Venous thrombosis – prevention, treatment, and risks
- Total intravenous anaesthesia, targeted controlled infusion
- Intravenous regional anaesthesia (Biar block).

- Intraoperative hypothermia.
- Hypotensive anaesthesia.
- Ventricular tachycardia, Ventricular fibrillation, Pulse less electrical activity.
- Using of defibrillator.

Principles of Anesthesia -I : Course Code: ANS -2327

Course general Description This course is designed to integrate comprehensive knowledge of history of anesthesia, types of pain and Pain Pathways, principles of anesthesia and practice to fire and electrical safety, the principle of pharmacology, genomic medicine, and study of the health practitioner hazard and safety.

Course Main Objective(s)

By the end of this course, students must be able to:

- Brief History of Anaesthesia.
- Genomic of perioperative Medicine.
- Mechanism of Anaesthesia and consciousness.
- Pharmacological Principles.
- Electrical and Fire Safety.
- Types of pain and Pain Pathways.
- Professionalism and Anaesthesia Practice.
- Occupational Health.

Safe Anaesthesia practice.

Principles of airway management : Course Code: ANS -3331

Course general Description : This course trains the students to master the advanced skills of airway management to be used in the field for both trauma and medical patients when the need arise

Course Main Objective(s) : This course trains the students to master the advanced skills of airway management to be used in the field for both trauma and medical patients when the need arise .

1. What is the main purpose for this course?

Developmental skills and foundations of the clinical practice of anaesthesia gained through

one-on-one supervised instruction in the operating room and other ancillary anaesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop.

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

1. Teaching the subject in power point available to students.
2. Increased use of electronic based reference material.
3. Content following the most recent research in the field.
4. Some of the topics are planned to be added to related modules.
5. Tutorials are improved from questions asking to discussion of interactive clinical cases
6. Increasing number of teaching staff.
7. Use of Black Board for the purpose of classes and any other information.
8. Briefly adding relevant applied in every topic.
9. Increased frequency of exams to be conducted.

Medical Emergency : Course Code: ANS -4349

Course general Description This course is designed to integrate comprehensive knowledge of anesthesia management and practices to provide the students with the skills, knowledge, and background necessary to be professional healthcare providers in dealing with different anesthetic cases for patients who have coexisting diseases

Course Main Objective(s)

By the end of this course, students must be able to:

1. Know and interpret the different procedures practiced for different types of surgery.
2. Interpret the techniques of hypotensive anesthesia and anesthesia with hypothermia.
3. Realize the obesity and its effects.
4. Aware of cardiovascular surgery & CPB.

Clinical Anesthesia -1 : Course Code: ANS -2423

Course general Description : Developmental skills and foundations of the clinical practice of anesthesia gained through providing students with the principles of anesthesia practices which is involved in this course.

This course contains preoperative evaluation and assessments, perioperative documentations, general anesthesia techniques, and medications.

Course Main Objective(s) :

1. What is the main purpose for this course?

Developmental skills and foundations of the clinical practice of anaesthesia gained through

one-on-one supervised instruction in the operating room and other ancillary anaesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop.

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

1. Teaching the subject in power point available to students.
2. Increased use of electronic based reference material.
3. Content following the most recent research in the field.
4. Some of the topics are planned to be added to related modules.
5. Tutorials are improved from questions asking to discussion of interactive clinical cases
6. Increasing number of teaching staff.
7. Use of Black Board for the purpose of classes and any other information.
8. Briefly adding relevant applied in every topic.
9. Increased frequency of exams to be conducted.

Problem solving & decision making : Course Code: ANS – 4243

Course general Description :

Knowledge of other courses prescribed in the previous semesters. Knowledge of cardiac complications and their management. Know the airway management

Course Main Objective(s) :

1. What is the main purpose for this course?

The aim of the course is to teach the students certain hot topics in anesthesia and critical care medicine, to let them oriented with different challenges in patient management in different situations, like challenges in difficult airway management, full stomach, dealing with elderly patient.

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

1. Review knowledge of physics, gas laws applications in anesthesia and anesthesia machines.

.2. Gain the knowledge of application of central venous catheter insertion. a.3. Identify how dysfunction capnogram can affect the patient.

a.4. Recognize the improper placement of ETT its complication and its remedies.

a.5. To know the benefits of the uses of swanganz catheter and complications.

a.6. To know the use of ventilator, monitoring patients and its complications

Clinical Anesthesia 4 : Course Code: ANS -4442

Course general Description

Knowledge of other courses prescribed in the previous semesters. Knowledge of cardiac complications and their management. Know the airway management

Course Main Objective(s) :

1. What is the main purpose for this course?

By the end of this course, the student must be able to:

Know and interpret the different procedures practiced for different types of surgery.

How to deal with patients in different critical situations like:

Lung transplantation

Congenital Diaphragmatic hernia

Thoracoabdominal aortic aneurysms Abdominal

aortic aneurysm repair Tetralogy of fallouts

Intestinal obstruction

Carotid endarterectomy

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

1. Teaching the subject in power point available to students.

2. Increased use of electronic based reference material.
3. Content following the most recent research in the field.
4. Some of the topics are planned to be added to related modules.
5. Tutorials are improved from questions asking to discussion of interactive clinical cases
6. Increasing number of teaching staff.
7. Use of Black Board for the purpose of classes and any other information.
8. Briefly adding relevant applied in every topic.
- 9-Increased frequency of exams to be conducted.

Course general Description This course is designed to integrate comprehensive knowledge of anesthesia management and practices to provide the students with the skills, knowledge, and background necessary to be professional healthcare providers in dealing with different anesthetic cases for patients who have coexisting diseases

Course Main Objective(s) :

Course Main Objective(s)

By the end of this course, students must be able to:

1. Know and interpret the different procedures practiced for different types of surgery.
2. Interpret the techniques of hypotensive anesthesia and anesthesia with hypothermia.
3. Realize the obesity and its effects.

ESSENTIALS OF CRITICAL CARE

Course general Description

This course is designed to have a comprehensive knowledge of different diseases encountered in critical care medicine and its supportive therapy. This course also provides students with the skills, knowledge, and background necessary to be a professional healthcare provider in dealing with patients who are critically ill and are admitted to Intensive care units

Objectives-

9. Understand the basic concept of various disease conditions.
10. Learn the supportive practices in ventilator dependent patient.
11. Initiation and maintenance of Hemodynamic support.
12. Administration of various modes of oxygen therapy to a patient.
13. Perform Hemodynamic monitoring and maintenance of its equipment.
14. Identify the different types medical and surgical emergencies.

Introduction to anaesthesia

Course description

To develop skills and foundations of the clinical practice of anaesthesia gained through one-on-one supervised instructions in the lecture hall, practical labs and operating room.

Objectives-

Developing skills and foundations of the clinical practice of anaesthesia gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. Prepares and educates the student to work within the anaesthesia care team. Introduction to induction, maintenance, and emergence from anaesthesia. Includes history of anaesthesia, types of anaesthesia, universal precautions and infection control, layout of the operating room, sterile fields and techniques, interacting with patients, starting intravenous catheters and arterial cannula, obtaining arterial blood samples, and application of ASA-standard monitors. Students will utilize anaesthesia simulator to gain the basic knowledge and usage of monitors.

Introduction to critical care

Course general Description-

This course is designed to introduce and have a comprehensive knowledge of different types of Intensive care units and to provide the students with the skills, knowledge, and background necessary to be a professional healthcare providers in dealing with different ICU practices.

Objectives-

- 1- Understand the basic concept of ICU's design and working.
- 2- Learn the preventive practices in ICU.
- 3- Hemodynamic drug identifications and methods of its administration.
- 4- Administration of various modes of oxygen therapy to a patient.
- 5- Perform Hemodynamic monitoring and maintenance of its equipment.
- 6- Identify the different types of maintenance and resuscitation Fluids.
- 7- Basics of modes of mechanical ventilation

Principles of anaesthesia 2

Course description-

This course contains the study of principles and practice of anesthesia w.r.t general and regional anesthesia techniques. Description about Local and general anesthesia drugs, anesthesia machine, and different patient positions during surgery and its effect on the physiological functions of the body

Objectives- The students should know about

1. Principles & Practice of anaesthesia.
2. Preoperative Evaluation & medication.
3. Inhalational anaesthetics.
4. I.V anaesthetic agents.
5. Opioids, Local anaesthetics, Neuromuscular blockers.
6. Anaesthetic Adjuncts.
6. Regional Anaesthesia including spinal/ Epidural anaesthesia and Peripheral nerve blocks

