



अटल बिहारी वाजपेयी चिकित्सा विश्वविद्यालय, उ० प्र०, लखनऊ
Atal Bihari Vajpayee Medical University, Lucknow U.P.

**ORDINANCE FOR
M.SC IN OPERATION THEATRE
TECHNOLOGY**

1. FACULTY OF ALLIED HEALTH SCIENCES

- i. This ordinance will be applicable to following course and each successful candidate shall be granted a degree of M.Sc. (Operation Theatre Technology) in the specialty in which syllabus has been notified by the University.
- ii. M.Sc. OTT

2. LEARNING OBJECTIVES

1. Hands on training on all anesthesia and surgical equipment like anesthesia machine, monitors, different surgical instruments, laparoscopy equipment, ventilator etc.
2. Training in aseptic techniques.
3. Exercise empathy and a caring attitude towards patients.
4. Maintain professional integrity, honesty and high ethical standards
5. Capability of handling adverse reactions and emergencies in OT and PACU.
6. Demonstrate skills in maintenance of equipment and proper documentation.
7. Be a motivated teacher- defined as one keen to share knowledge and skills with a colleague or a junior or any learner.

3. EXPECTATION FROM THE FUTURE GRADUATE IN PROVIDING PATIENT CARE

1. Student should be able to demonstrate comprehensive knowledge, of assisting all types of surgical procedures and anesthetic techniques to all types of Patient.
2. Student should be able to integrate knowledge with practice in handling and maintaining various instruments of anesthesia, monitoring and surgical instruments and equipment.
3. He/she must be well versed with infection control, sterilization and CSSD protocols.
4. Student must be capable of OR management, medical record keeping, consent and accreditation & management policies implementation
5. Student should be able to manage advanced patient care procedures during anesthesia and critical care.
6. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible management.
7. Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health care personnel and to respect the rights of the patient including the right to information, privacy and second opinion.
8. Student should have ability to work independently and take responsibility for his own work, collaborating in activities of clinical research, training ethical and evidence-based practices.

12/4/22



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4. ELIGIBILITY FOR ADMISSION

Course	Eligibility
MSc OTT	A person who has passed B.Sc. OTT / B.Sc. Anesthesia examination with at least 50% marks in aggregate from a recognized University, shall be eligible to join First semester of M.Sc. OTT. Course.

5. DURATION OF COURSE

The duration of the course leading to the Degree of M.Sc. OTT shall be of four academic semester. There shall be actual teaching for a minimum of 90 days excluding admissions, preparation and examination days in each session.

6. MAXIMUM DURATION OF COURSE

Total Duration of the course is two years (should not exceed more than Four years).

7. MEDIUM OF COURSE AND EXAMINATION

Medium of instruction and examination will be English.

8. ATTENDANCE

Minimum 75% attendance in each semester, both for theory and practical classes separately. Student with deficient attendance will not be permitted to appear in University exam.

9. EXAMINATION

The university examination shall be held at the end of each semester, ordinarily on such dates as may be fixed by the Vice-Chancellor and notified by the Controller of Examinations. The candidates shall have to appear in the examination after completion of each semester and submission of Project Report.

10. SUPPLEMENTARY EXAMINATION

The Supplementary examinations for re-appearing candidates shall be held ordinarily before the main exam of the next semester.

11. EXAMINATION FEES

The amount of examination fees to be paid by a regular student shall be as prescribed by the university from time to time. A candidate who re-appears in one or more papers shall pay examination fee as for the whole examination.

12. ELIGIBILITY FOR EXAMINATION

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लखनऊ

S. Chandra



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- Student have must passed the requisite qualifying examination as laid down in Clause 4 above, if he/she is a candidate for the First semester examination or has passed the preceding semester examination if he/she is a candidate for the second/third /fourth semester examination.
- Student must have attended not less than 80% of the full course of lectures delivered in each semester in Theory and Practical.

13. The examination shall be held according to the Scheme of examination and syllabus recommended by board of studies & approved by the Academic Council. A candidate who fails in an examination or having been eligible fails to appear in the examination shall take the examination according to syllabus prescribed by the University for regular students provided that the syllabus for the candidates of Supplementary examinations shall be the same as was in force in the last semester examination.

14. PASSING SCORE

- a) The minimum score required to pass examination shall be :-
- 50 % in aggregate of internal assessment & theory marks for each theory subject.
 - 50 % in aggregate of internal assessment & examination marks for practical subject.
- b) As soon as possible, after termination of the examination, the controller of Examinations shall publish the result of the candidates and issue Detailed – Marks – Card/Certificate.
- c) Successful candidates who obtain 75% or more marks in any subject shall be declared to have passed with “distinction” in that subject provided he/she passes in all the subjects of the examination at one and the same time and the examination is semester Examination.

15. GRACE MARKS

- a) The grace marks as per university regulations.
- b) Re-evaluation/Re-totaling/Re-checking etc. as per University regulations.

16. PUBLICATION OF RESULT

- a) The Board of Examiners shall send the result to the Controller of Examinations for publication of the result of the examination.
- b) On receipt of the result from the Board of Examiners, the Controller of Examination shall publish it as soon as possible. A candidate shall be declared successful only when he/she has passed the examination and his/her thesis has been accepted.

कुलपति
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लखनऊ, उत्तर प्रदेश

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17. AWARD OF DEGREE

Each successful candidate shall be granted a Degree of Master of Science in Operation Theatre Technology (MOTT)

18. MIGRATION

Migration/transfer of students undergoing any postgraduate course degree shall not be permitted.

19. APPOINTMENT OF EXTERNAL/INTERNAL EXAMINER

- The Examiner shall have at least **two year** post graduate teaching experience in the Subject concerned or in Allied subjects in a college affiliated to a recognized University.
- There shall be **one external examiners & one internal examiner** recommended by board of studies & approved by academic council. The Board of Studies shall supply the panel of examiners to University for appointment of internal/external examiners by the Vice-Chancellor.
- The question paper of Theory Paper shall be set and Answer-books examined by the both Examiner & Internal examiner as per the syllabus of M.Sc. OTT
- The same set of examiners shall ordinarily evaluate the written, practical and oral examinations.

20. DISSERTATION

- Each candidate pursuing M.Sc. OTT courses are required to carry out dissertation on a selected topic under the supervision of a post-graduate teacher for a period of one year after the submission of plan.
- The dissertation is aimed to train the students in research methods and techniques. It includes identification of problem, formulation of hypothesis, search and review of literature, getting acquainted with recent advances, collection of data, critical analysis, interpretation of results and drawing conclusions. Plan submission is required within six months from the date of admission and has to be approved by Institutional Ethical Committee (IEC) and Board of PG Studies within nine months from the date of admission. Final dissertation shall be submitted to the institution before three months of final examination.
- The dissertation topic or Supervisor or change of topic shall be assigned/ made on the recommendation of the concerned PG Board of Studies.



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- The written text of dissertation shall not be less than 50 pages and shall not exceed 100 pages excluding references, tables, questionnaires and other annexure. A declaration by the candidate that the work was done by him/her is bonafide. The Supervisor, Head of the department and Head of the Institution shall certify the bonafide of the dissertation.
- Two copies of dissertation shall be submitted to the Principal of the institute and one copy to Head of the Department with a soft copy; three months before the final examination. It shall be assessed by internal & external examiners to be appointed by the University.

21. CURRICULUM

- By the end of the course, the student should have acquired knowledge, professionalism and skills as given below:-

1st Semester

Basics of Human Anatomy & physiology, like -Surface anatomy, various viscera, important structures/organs, locations and functions of different systems of body. Also, basic idea about different pathological and micro biological aspects. Basics of biochemistry like- Fluids and Electrolyte, Acid Base Balance, Nutrients and Minerals, etc. They should also know basics of clinical pharmacology with emphasis on applied aspects. Apart from this, knowledge of basic principles of physics relevant to OT & ICU and basic training on computers will also be imparted.

2nd Semester

Basics of anaesthesia, drugs and equipments including handling and maintenance, basic knowledge of functioning of CSSD and proper handling of machines used in CSSD. Basics of surgery: General surgical procedures, instruments and aseptic technique in operation theatre. Basic knowledge of medicine including diseases associated with organs and systems and also important aspects of medical ethics.

Knowledge of Biostatistics including data collection, sampling, compiling, etc. to help them to do research work, making graphs, diagrams etc. Knowledge Hospital Management will help them to build self confidence level and they will be aware of their responsibilities and thus can provide good quality patient care.



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3rd Semester

Basic knowledge of Anaesthesia Delivery System and Devices so they can handle the anaesthesia equipments confidently. They should know how to handle other equipments like OT lights, OT table, C –arm, diathermy, etc. Knowledge of Basic Procedures and Techniques like IV cannulation, central venous catheterization, arterial cannulation, intubation, assisting in various anesthetic procedures, bandaging, tourniquet system, making of various dilutions of drugs used in OT and ICU.

Basic knowledge of instruments used in various specialties of surgery, laying of trolley and careful handling of specialized equipments. A proposal for research project defining the methodology, and design of the experiments needed, etc. will be submitted in the third semester.

4th Semester

Special training on anaesthesia related to advanced surgical procedures, ICU procedures, etc. will be imparted. The student should submit a draft of the completed research project to the advisor before the end of the fourth semester. Research project improves the skills of the student in a particular field of interest, and can help in his future growth.

CLINICAL SKILLS

1 Basic Anesthesia Techniques and Monitoring:

- Preparations of Drugs used for premedication, GA, RA, pain relief and peri-operative care.
- Skilled use of laryngoscope, endotracheal tubes, airways, LMAs, AMBU bag, suction catheters.
- Preoperative preparation of patients and checklist of anaesthesia trolley.
- Handling and maintenance of various equipments used in OT.
- Handling and maintenance of multi parameter monitors, setting alarm limits.

2 Basic Surgical Techniques

- Skill in management of hemorrhage, tourniquet application, skin preparation
- Identification and use of various surgical instruments, suture materials, cautery machine
- Aseptic techniques, drainage of abscess.

3 Sterilization Procedures

- Techniques of sterilization of OT: Fumigation, fogging, Disinfection, carbonization,
- Handling and maintenance of various machines used in CSSD, aseptic storage, documentation.
- Practical training on different methods of decontamination of instruments.



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4 Anaesthesia delivery Systems and Basic Procedures

- Handling of anaesthesia machine, monitors, cylinders, ventilators, breathing systems.
- Expertise in using NG tube, LMA, airways, masks, AMBU bag, IV cannula, Foley's catheter.
- Assisting in inserting CVP line, arterial line, intubation, resuscitation, Defibrillation.
- Preop and postop care of patients, Checklist of Do's and Don'ts, GA & RA trays.

5 Preparation for various surgeries

- Preparation of trolleys for all types of surgeries, Positioning of patients
- Handling of OT table, OT lights, C arm, specialized surgical instruments.
- Handling, Maintenance and disinfection of endoscopic equipments

6 Anaesthesia for Specialty surgeries and Intensive Care

- Special preparations for anaesthesia for patients with co-morbidities.
- Precautions during ECT, MRI, angiography, extremes of age, unstable patient
- Use of specialized equipments for specialized surgeries, Emergency drugs used in ICU.
- Care of unconscious patient, patient on ventilator, use of infusion pumps, IV fluids
- Preparing various drug dilutions, setting infusion rates, drip rates; ABG analysis.

TEACHING AND LEARNING METHODS

Apart from didactic lectures, seminars, journal clubs (Understanding of Articles), reviews, guest lectures and CME should also get priority for acquiring theoretical knowledge. On the spot teaching, equipment handling, interactive group discussions and clinical demonstrations play important role in practical learning. Students should have hands-on training in performing various procedures and ability to interpret results of various tests/investigations. Exposure to newer specialized diagnostic/therapeutic procedures should be given even outside the campus if required. Use of audio visual aids should be done as and when required.

It should provide opportunities initially for practicing skills in controlled or simulated situations. The more realistic the learning situation, the more effective will be the learning. Clinical Postings/training should include measures for assessing competence in skills being taught and providing feedback on progress towards a satisfactory standard of performance.

The following guideline to various teaching/learning activities that may be employed:

- Dedicated Lectures on PPTs.
- Student-Interactive Session.



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- Problem Based Learning.
- Project Based Learning.
- Focus/Spot Group Discussion.
- Students Seminars.
- Demonstrations of equipments.
- Taking or Handling classes of Graduate Students.
- Intradepartmental CME's, Guest Lectures etc.
- Taking them in Conferences, Seminars.
- Skills Training
- Article Learning
- Research Projects
- Weekly rotational clinical postings.

कलपति



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M.Sc. OTT SYLLABUS

SEMESTER-I

Paper -1

Paper Code - [MOTT -101]

ANATOMY

Total Hours 50

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	Introduction	• Human body- Overview & Organization, Anatomical terminology.	3 Hours
2.	Skeletal Muscles	• Major skeletal muscles of the Head, Neck, Thorax, Abdomen & upper and lower limbs.	4 Hours
3.	Upper Limb	• Regional and surface anatomy of the shoulder, axilla, and upper limb	2 Hours
4.	Lower Limb	• Regional & surface anatomy of the hip, thigh, legs	2 Hours
5.	Thorax Anatomy	• Regional & surface anatomy of Intercoastal space, Pleura, Bony thoracic cage, Rib , Sternum	4 Hours
6.	Respiratory system	• Regional & surface anatomy of Nose, Larynx, Trachea, Lungs, Bronchial tree.	4 Hours
7.	Heart	• Regional & surface anatomy of heart, chambers of heart, • Regional & surface anatomy of Valves of heart, Major Arteries and veins of heart, Pericardium.	6 Hours
8.	Alimentary System	• Regional & surface anatomy of Pharynx, Esophagus, Stomach, Small Intestine, Large Intestine, Spleen, Liver, Gall Bladder, Pancreas.	4 Hours
9.	Central Nervous System	• Regional & surface anatomy of Spinal Cord, Meningeal Covering • Regional & surface anatomy of brain	4 Hours
10.	Sensory Organs	• Regional & surface anatomy of Eyes, Ear, Tongue, Nose.	5 Hours
11.	Urinary System	• Regional & surface anatomy of Kidney, Ureters, Urinary bladder, Urethra.	4 Hours
12.	Male Reproductive System	• Anatomy of the scrotum, Prostate gland, penis & testis. • Epididymis, Ducts deferens, Inguinal canal, Seminal vesicles, Bulbourethral gland	4 Hours
13.	Female Reproductive System	• Anatomy of the ovaries, fallopian tubes, Uterus, • Vagina and external genitalia; functions of ovary.	4 Hours



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SEMESTER - I

Paper - II

Paper code – [MOTT 102]

PHYSIOLOGY AND BIOCHEMISTRY

Total Hours - 40

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	General Physiology	<ul style="list-style-type: none">• Introduction to the structure and function of cell organelles,• Transport across cell membrane.	3 Hours
2.	Blood	<ul style="list-style-type: none">• Blood groups and Rh factor• Composition of blood, -Functions of the blood, plasma proteins• Function of hemoglobin• Detailed description about WBC-total count (TC), differential count(DC) and functions.• Platelets – formation and normal level and functions	5 Hours
3.	Cardio-Vascular System:	<ul style="list-style-type: none">• Structure & properties of cardiac muscle.• Cardiac cycle, Heart rate regulation-factors affecting Heart Rate.• BP: Definition, regulation, factors affecting BP,• Cardiac output- Regulation & function affecting Cardiac output.	4 Hours
4.	Respiratory system	<ul style="list-style-type: none">• General organization,• Mechanics of respiration• Definitions and normal values of lung volumes and lung capacities.• Exchange of Gases• Respiratory Failure	5 Hours
5.	Excretory System	<ul style="list-style-type: none">• Kidneys: structure & function.• Micturition - neural control- neurogenic bladder,• Normal urinary output• Temperature Regulation, Circulation of the skin- body fluid-electrolyte balance	4 Hours
6.	Nervous system	<ul style="list-style-type: none">• Brain and spinal cord• Conduction of nerve impulse• Autonomic Nerves system	4 Hours
7.	Endocrine System	<ul style="list-style-type: none">• Physiology of Thyroid, Parathyroid, Suprarenal glands, Pineal gland and organs with a minor endocrine function, Thyroid gland, Bulbourethral glands.	4 Hours
8.	Digestive System	<ul style="list-style-type: none">• Physiology of the Mouth, Salivary glands, Pharynx, esophagus, stomach, intestine, liver pancreas, biliary system & peritoneal cavity, esophagus, stomach, small intestine, pancreas & liver.	4 Hours
9.	Fluids and Electrolyte, Acid Base Balance	<ul style="list-style-type: none">• Composition of body fluids.• Acid base balance• Disturbances of acid base balances (pH, alkalosis, acidosis)	4 Hours
10.	Nutrients and Minerals	<ul style="list-style-type: none">• Carbohydrate, Protein• Lipid• Vitamin,• Minerals	3 Hours



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PRACTICALS:-

Demonstration of pH meter.

Acid base titration & validation of normality equation. Urine analysis.

General tests of carbohydrates. General tests of proteins.

Making of blood smear. DLC, TLC, RBC, ESR.

Blood pressure, Pulse.

कुसुमप्रति

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SEMESTER-I

Paper – III

Paper code – MOTT [103]

CLINICAL PHARMACOLOGY

Total Hours - 40

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	Anti-sialagogues	• Atropine, Glycopyrrolate	1 Hours
2.	Sedatives anxiolytics	• Diazepam, Midazolam, Phenergan, Lorazepam, Chlorpromazine,	4 Hours
3.	Narcotics	• Morphine, Pethidine, Fentanyl, Nalbuphine, Butorphanol, Tramadol	6 Hours
4.	NSAIDs	• Diclofenac, Ketorolac, COX-2 inhibitors	1 Hours
5.	Antiemetic	• Ondansetron	2 Hours
6.	Prokinetics	• Metoclopramide	1 Hour
7.	H2 Blockers and Proton Pump Inhibitors	• Ranitidine, Omeprazole, Pantoprazole	2 Hours
8.	Induction agent	• Thiopentone, Propofol, Ketamine, Etomidate.	2 Hours
9.	Muscle relaxants	• Depolarizing - Suxamethonium, • Non depolarizing -Pancuronium, Vecuronium, Atracurium, Rocuronium	3 Hours
10.	Inhalational anesthetics	• N ₂ O • Halothane • Isoflurane • Sevoflurane • Desflurane	6 Hours
11	Reversal agents	• Neostigmine, Glycopyrrolate, Atropine, Nalorphine, Naloxone, Flumazenil.	4 Hours

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12	Local anesthetics	<ul style="list-style-type: none">Lignocaine, Bupivacaine, Ropivacaine, EMLA.	4 Hours
13.	Emergency drugs	<ul style="list-style-type: none">Adrenaline and its mode of administration, dilution, dosageDopamineDobutamineNor Adrenaline, MephenteramineSodium BicarbonateHydrocortisoneAntihistaminicAntiarrhythmicVasodilators – NitroglycerinFurosemideMannitolVarious Fluids – Crystalloids & colloids - NS Ringer lactate, Haemaccel, Hetastarch	10Hours

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SEMESTER-I

Paper – IV

Paper code – MOTT [104]

CLINICAL PATHOLOGY AND MICROBIOLOGY

Total Hours - 40

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	Cellular Adaptation	<ul style="list-style-type: none">Cellular adaptation, Cell injury & cell deathCellular response to stress and noxious stimuliReversible and irreversible cell injury	4 Hours
2.	Blood	<ul style="list-style-type: none">Blood GroupsBlood TransfusionBlood componentsBT & CTTransfusion Reactions	5 Hours
3.	Infectious diseases.	General principles of microbial pathogenesis <ul style="list-style-type: none">Viral infectionsBacterial infectionsRheumatic heart diseaseFungal infectionsParasitic infections	6 Hours
4.	Waste management	<ul style="list-style-type: none">Hospital waste disposals	2 Hours
5	Hospital acquired infection and prevention	<ul style="list-style-type: none">Hospital acquired infection and prevention,	4 Hours
6.	Hepatitis B, C, HIV/AIDS	<ul style="list-style-type: none">Hepatitis B, C, HIV/AIDS Causes & prevention	4 Hours
7.	PPE, Universal Precautions	<ul style="list-style-type: none">PPE(Personal Protective Equipments list), Universal Precautions indications	3 Hours
8.	Decontamination and Sterilization	<ul style="list-style-type: none">Methods of cleaning, Decontamination and Sterilization	5 Hours
9.	Sample collection, Labeling and sending to Lab	<ul style="list-style-type: none">Sample collection, Labeling and sending to Lab	6 Hours



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SEMESTER-II

Paper – I Paper

code

MOTT[201]

BASIC MEDICINE AND MEDICAL ETHICS

Total Hours - 40

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	Basic Disorder	<ul style="list-style-type: none">Disorder of hematopoiesisAnemias	4 Hours
2.	Infections and Diseases	<ul style="list-style-type: none">Sepsis and septic stockFever of unknown originInfective endocarditis	4 Hours
3.	Different Diseases of CVS	<ul style="list-style-type: none">CHFPulmonary EdemaCADPeripheral vascular diseases (PVD)	3 Hours
4.	Disease of Respiratory system	<ul style="list-style-type: none">AsthmaPneumoniaCOPDRestrictive Lungs Disease.	3 Hours
5.	Kidney & Urinary Tract Disease	<ul style="list-style-type: none">Acute renal failureGlomerulonephritisHemodialysisKidney transplantUrinary Tract Infection	3 Hours
6.	Liver and Biliary Tract Disease	<ul style="list-style-type: none">Viral hepatitisAlcoholismLiver failureHepatic Coma	3 Hours
7.	Endocrinology and Metabolism.	<ul style="list-style-type: none">Diabetes mellitusHyperthyroidism, hypothyroidism	2 Hours
8.	Medical Ethics	<ul style="list-style-type: none">DefinitionBasic principles of medical ethics	3 Hours
9.	Malpractice and Negligence	<ul style="list-style-type: none">Malpractice, Types of medical malpractice.Negligence	2 Hours

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Signature
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10.	Rational and Irrational drug therapy.	<ul style="list-style-type: none">• Introduction to Rational and irrational drug therapy.	3 Hours
11.	Different type of Consent	<ul style="list-style-type: none">• Consent• Different types of consents• Right of patients	2 Hours
12.	Organ transplantation	<ul style="list-style-type: none">• Successfully transplanted organs• Policies and procedures of organ transplantation• Organ donor option	3 Hours
13.	Medical Legal Aspects of Medical Records	<ul style="list-style-type: none">• Medico – legal case and type• Records and documents related to MLC• Ownership of medical records• Confidentiality Privilege communication	4 Hours

12/4/22

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SEMESTER -II

Paper -II

Paper code – MOTT- [202]

BASICS OF ANAESTHESIA

Total Hours - 50

S. No.	Topic	Teaching Guidelines Domain	Teaching Hours
1.	Technical terms / Documentation	<ul style="list-style-type: none">• Technical terms used in anaesthesia /OT• Importance of Record keeping in OT / ICU• Various registers and statistics• PAC and Anaesthesia record	4 Hours
2.	Phase of GA	<ul style="list-style-type: none">• Induction• Intubation• Maintenance• Reversal• Recovery / Emergence	4 Hours
3.	Premedication	<ul style="list-style-type: none">• Different drugs used for Premedication their doses, effects and side effects.	4 Hours
4.	I.V. Induction agent Inhalational Anesthetic agents	<ul style="list-style-type: none">• I.V. Induction agent their doses, indication, contra indication and management• Properties of Inhalational anesthetic agents, their role in GA.• Different volatile anesthetic agents	7 Hours
5.	Neuromuscular Blockers	<ul style="list-style-type: none">• Types of drugs used for Neuromuscular blocks their doses, indication and contra indications, complications	4 Hours
6.	Reversal Agents	<ul style="list-style-type: none">• Drugs used for Reversal Agents their doses, indication and Contraindication.	3 Hours
7.	Steroids	<ul style="list-style-type: none">• Role of steroids in perioperative period their doses, indication and contra indication	2 Hours
8.	Analgesics	<ul style="list-style-type: none">• Drugs used as Analgesics their doses, indication and contra indication• Opioids / Non opioids Analgesics• Infusions, PCA	5 Hours
9.	Emergency Drugs	<ul style="list-style-type: none">• Emergency drug used in OT and ICU Their uses, doses, indication and contra indication• Vasopressors, inotropic agents, Vasodilators , Anticholinergics, Anticoagulants, Antiarrhythmic,• Syringe pumps and infusion pumps	6 Hours

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10.	Different Airways / Endotracheal tubes	Types, parts, sizes of ETT • Specialized ETT and uses • Oropharyngeal / Nasopharyngeal airways • Sizes, color coding, insertion techniques. • Airways Adjuvants • Stylet • Supraglottic Airway Devices(SADs), • Difficult intubation trolley • Tracheostomy, Decannulation protocol	4 Hours
11.	Suction Catheters	• Suction Catheters – types, sizes, color coding, techniques of suction • Suction pressure	1 Hours
12.	Laryngoscope	• Laryngoscope – Types, Size of blades, • Fiber optic intubation / video laryngoscopy • Laryngoscopic view of larynx	2 Hours
13.	Spinal and Epidural needle	• Spinal and Epidural needle – sizes, color coding, features, differences • Epidural Catheters	2 Hours
14.	Asepsis in OT	Aseptic techniques, OT sterilization procedures • How to handle HIV, HCV, HBsAg positive cases in OT • PPE	2 Hours

PRACTICALS

Preparations of drugs and trolley.

Differences between subarachnoid and epidural anaesthesia

Calculation of doses of various important drugs used during - Perioperative period

Calculation of dose from various % strengths Gram, mg, mcg; relationship and conversions

Insertion and care of airways, SADs, laryngoscope blade

Assessment of sizes of ETT, airways, suction catheters, Laryngoscopic blades, SADs



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SEMESTER-II
Paper – III Paper code MOTT[203]
BASICS OF SURGERY

Total Hours - 40

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	Basic Procedures Techniques.	<ul style="list-style-type: none">• Scrubbing Technique• Gowning Technique• Gloving techniques.	3 Hours
2.	Surgical terminology and Incision	<ul style="list-style-type: none">• Surgical terminology• Types of incision• Indications for the use of particular incision	4 hours
3.	Hemorrhage	<ul style="list-style-type: none">• Signs and symptoms of internal and external hemorrhage• Classification of hemorrhage• Management of hemorrhage	6 Hours
4.	Tourniquets	<ul style="list-style-type: none">• Types of tourniquets• Uses of tourniquet• Duration of tourniquet application,• Pneumatic tourniquet, application• Complication of tourniquet application	4Hours
5.	Wounds and Abscess	<ul style="list-style-type: none">• What is Wounds• Types of wounds• Wound healing• Treatment and complications of wound• Inflammation• Wound infections• Causes and treatment Incision and drainage of abscesses• Importance of personal cleanliness and aseptic techniques	8 Hours
6	Skin Preparation for Invasive Procedures	<ul style="list-style-type: none">• Skin preparation for invasive procedures• Surgical asepsis	5 Hours
7	Classification of Surgical Instruments and Their Uses	<ul style="list-style-type: none">• Classification of surgical instruments and their uses	5 Hours

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8.	Suture Material	<ul style="list-style-type: none">• Suture Material: Types and uses.• Different Suturing Techniques.• Instruments used for suturing	5 Hours
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PRACTICAL

- Scrubbing, gowning, gloving techniques.
- Instruments, suture materials.
- Application of tourniquets, Types of incisions.
- Bandaging of wounds, drainage of abscess.



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SEMESTER-II

Paper – IV Paper code MOTT[204]

RESEARCH METHDODOLOGY AND BIOSTATISTICS

Total Hours- 40

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	Introduction research methodology	<ul style="list-style-type: none">• Introduction to research methods, Variable in research• Reliability and validity in research• Conducting a literature review• Formulation of research problems and writing research questions	10 Hours
2.	Data collection	<ul style="list-style-type: none">• Experimental and non experimental research designs• Sampling methods, data collection, observation method• Interview method, questionnaires and schedules construction	5 Hours
3.	Research Frame work	<ul style="list-style-type: none">• Ethical issues in research• Principles and concepts in research ethics- confidentiality and privacy informed consent, Writing research proposals• Development of conceptual framework in research	5Hours
4.	Introduction to statistics	<ul style="list-style-type: none">• Introduction to statistics• Classification of data, source of data• Method of scaling-nominal, ordinal, ratio and interval scale• Measuring reliability and validity of scales	5 Hours
5.	Data sampling	<ul style="list-style-type: none">• Measures of central tendency• Measures of dispersion, skewness and kurtosis, sampling, sample size determination.	10 Hours
6.	Data correlation	<ul style="list-style-type: none">• Correlation-Karlperson, spearmans rank correlation methods regression analysis, testing hypothesis-chi square test, student test, NOVA	5Hours


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SEMESTER-III

Paper - I

Paper code-MOTT-[301]

ANAESTHESIA EQUIPMENTS

Total Hours - 45

S. No.	Topic	Teaching Guidelines	Domain	Teaching Hours
1.	Medical Gas Supply	<ul style="list-style-type: none">Compressed gas cylinders, color coding, Types of cylinders (E&H), handling and storing of cylindersCylinder valves; pin index safety system (PISS), pressure regulator, safe handling of cylindersGas piping system / Manifold Room / DISSRecommendations for piping systemAlarms & safety devices.Oxygen Concentrator: Mechanism, functioning, maintenanceLiquid Oxygen		7 Hours
2.	Modern Anaesthesia machine	<ul style="list-style-type: none">Different parts of Modern Anaesthesia machineFunctioning of Anaesthesia WorkstationChecklist of Modern Anaesthesia machine before useSafety features in Modern Anaesthesia machine vs Basic Boyles ApparatusScavenging system: Role in modern anaesthesia practiceAnaesthesia VentilatorModes of ventilatorWorking principlesAlarms and settings		8 hours
3.	Breathing Systems	<ul style="list-style-type: none">General considerations: humidity & heatCommon components - connectors, adaptors, reservoir bag, expiratory valve.Methods of humidification.Classification of breathing systemMapleson system - A, B, C, D, E, FJackson Rees systemBain's circuitNon rebreathing valves - ambu valvesThe circle system - Components, advantages, disadvantages		8 Hours
4.	Diathermy / Cautery	<ul style="list-style-type: none">Diathermy /Cautery machineTypes, UsesPrecautions		3 Hours
5.	Defibrillators	Uses of Defibrillators / AED <ul style="list-style-type: none">Types of defibrillatorsSelection of charge for defibrillation, Position of PadsPrecaution during defibrillationCare and handlingFunctioning of AED		4 Hours



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6.	Monitors	<ul style="list-style-type: none">• Multipara monitors• ECG, Temperature• IBP / NIBP, CVP• Pulse oximeter: Types of probes, precautions• ETCO2 monitor• FIO2, inhalational gas analyzer• ABG machine, sampling of arterial blood• Care of monitoring equipments	8 Hours
7.	OT Table, OT lights, C Arm , HVAC system	<ul style="list-style-type: none">• Types of OT tables, positions, care and handling• Types of OT lights, specifications• Functioning and handling of C arm• Humidification, ventilation, Air conditioning system(HVAC)	5 Hours
8.	Suction machine	<ul style="list-style-type: none">• Types of Suction machine• Pressure setting for various requirements• Suction Catheter – Sizes, Color coding	2 hours

PRACTICALS

- Anaesthesia Delivery system and Devices
- Maintenance and upkeep of anaesthesia machine, monitors, accessories
- Recognizing various breathing circuits, basic components, assembling
- Setting up of various alarms, functioning of ventilator, setting alarms, modes, etc.
- Checking for leaks, Cockpit drill, Safety features of modern anaesthesia machine
- Parts of modern Anaesthesia work station, handling of gas cylinders
- Safety features in Anaesthesia machine
- Air conditioning system in OT, HEPA filters, Laminar air flow

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SEMESTER-III

Paper – II Paper

code MOTT-

[302]

BASIC PROCEDURES AND TECHNIQUES

Total Hours - 40

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	I.V. Cannulation	<ul style="list-style-type: none">Sizes, Color Coding, Technique of i.v. cannulationPreparation of I.V. drip,Types of fluids,Precaution during IV cannulation	4 Hours
2	Central Venous Catheterization And CVP	<ul style="list-style-type: none">Types, sizesLocationsPositions, Technique, PrecautionsComplications	5 Hours
3	Arterial Cannulation	<ul style="list-style-type: none">SignificanceLocations, types, sizes	4 Hours
		<ul style="list-style-type: none">TechniqueComplications	
4.	Intubation	<ul style="list-style-type: none">Technique of endotracheal intubation Insertion of SGADs (LMA, I-Gel etc.) Cuff inflation and pressureDifficult intubation kit Sellick maneuver, BURP Technique	2 Hours
5.	Bandaging And Splinting	Types of bandages and various techniques <ul style="list-style-type: none">Scalp bandage, Figure of 8, Bandages of Eye / EarSplinting Techniques, Use of Splints / Crape BandagePressure Points, Emergency Tourniquet	6 Hours
6	Drainage Of Abscess	Cleaning <ul style="list-style-type: none">IncisionDrainageBandaging	3 Hours



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7.	Foley Catheter	<ul style="list-style-type: none">• Insertion Technique• Sterile precautions	2 Hours
8.	Nasogastric Tube	<ul style="list-style-type: none">• Techniques of Insertion	2 Hours
9.	Face Masks & Airways, ETT, Laryngoscopes, CPR	<ul style="list-style-type: none">• Types of masks: Open and closed• Technique of holding Anaesthesia mask• Airways – Types, Sizes, insertion technique• Laryngoscopes – Types, Parts• Endotracheal tubes - Types, sizes, Specialized ETT, Double lumen tubes (DLT), bronchial blockers• Supraglottic Airway Device (SGADs): Types, sizes• Checking tube position, complications.• Difficult Intubation Trolley / Tray• Types of Oxygen masks• Basic CPR Protocol	6 Hours
10.	Making Of Various Dilution Of Drugs	<ul style="list-style-type: none">• Meaning of %, 1:1000, 1:20000 etc.• Macro drip / Micro drip / mcg / ml• Drop Factor• Drops per min, infusion rate calculation• Mcg / mg / gm Conversion• Making 2.5 % solution from 1 gm / 0.5 gm of Thiopentone powder.	4 Hours
12.	Baby Resuscitation Trolley	Contents of baby resuscitation trolley <ul style="list-style-type: none">• Uses• Check list	2 Hours

PRACTICAL

- Procedure for IV cannulation, CV cannulation, arterial cannulation
- Technique of endotracheal intubation, insertion of Foley's catheter, NG tube
- Calculation of ml of drug required from a given % of drug
- Method of holding resuscitation mask, triple airway maneuver
- CPR protocol

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SEMESTER-III

Paper – III

Paper code

MOTT[303]

PERIOPERATIVE ANAESTHETIC CARE AND PREPARATIONS

Total Hours - 40

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	Types Of Anaesthesia	<ul style="list-style-type: none">• General Anaesthesia Techniques• Phases of GA,• Balanced anaesthesia, TIVA• Regional Anaesthesia Techniques• IVRA, CNB, Plexus Block , Topical• Sedation /MAC• Complication of GA/RA	
2.	Pre-Op Check (PAC)	<ul style="list-style-type: none">• Pre anesthetic assessment.• History – past history - disease / Surgery/ and personal history - Smoking / alcohol / drugs / medication• General physical assessment, systemic examination – CVS, RS, CNS• Investigations – Hematological, Urine, ECG, Chest X- ray, Endocrine, Hormonal assays, Echocardiography, angiography, Liver function test, renal function test.	
		<ul style="list-style-type: none">• ASA grading - I, II, III, IV, V	
3.	Duties Of OT Technician In Pre-Operative Room	<ul style="list-style-type: none">• Patient check List : Protocol• Part preparation,• Consent, PAC, Investigations,• NPO Status, OT Dress,• Premedication• Basal parameters• I.V. Line, Premedication	8 Hours
4.	Pre-Operative Checklist /Cockpit Drill	<ul style="list-style-type: none">• Anaesthesia Machine / Gas Supply• Suction Machine• Monitors anaesthesia• Airway Devices – Laryngoscope, Airways, ETT, Stylet, tape gelly.• I.V. Cannula, I.V. fluids• Drugs – Anaesthesia related and Emergency.• Special preparation – As per specific Patient need.• Difficult intubation tray: Contents	8 Hours

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5.	Post-Operative Care	<ul style="list-style-type: none">• PACU, Discharge Criteria• Modified Aldrete Score• Five Vital Signs• PONV• Bladder Distension• Pain management	8 Hours
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PRACTICALS

- Setting of trolley for GA and Regional Anaesthesia
- Rapid sequence intubation, Sellick's maneuver (Cricoid pressure)
- Monitoring of patient in PACU, setting of alarms
- Post op management of pain, nausea, vomiting, and bladder distension

SEMESTER-III

Paper – IV

Paper code

MOTT[304]

ADVANCED SURGERIES

Total Hours - 50

S. No.	Topic	Teaching Guidelines Domain	Teaching Hours
1.	Preparation of OT	<ul style="list-style-type: none">• Preparation of OT before surgery	2 hours
2.	Positions of patient	<ul style="list-style-type: none">• Positions of patient for different surgeries	2 Hours
3.	Maintenance of Instruments.	<ul style="list-style-type: none">• Handling of instruments• Cleaning of instruments• Maintenance of instruments	4 Hours
4.	Instrument Requirement for Common Surgical Procedures	Instrument requirement for common surgical procedures such as <ul style="list-style-type: none">• Herniorrhaphy• Appendectomy• Laparotomy• Mastectomy• I&D• Hydrocele• Intestinal Obstruction	8 Hours
5.	Instruments for Obstetric and Gynecological surgeries	<ul style="list-style-type: none">• Instruments required for different obstetric surgeries• Instruments required for different Gynecological	4 Hours
6.	Preparation and Position for Urological Surgeries.	<ul style="list-style-type: none">• Brief description of different Urological Surgeries.• Preparation for different Urological Surgeries.• Position for different Urological surgeries	4 Hours



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7.	Orthopedics surgeries	<ul style="list-style-type: none">Brief description of different orthopedics Surgeries.Preparation for different orthopedics Surgeries.Position for different orthopedics surgeriesInstruments required for different orthopedics surgeries	4 Hours
8.	Neurological Surgeries	<ul style="list-style-type: none">Brief description of different Neurological Surgeries.Preparation for different Neurological Surgeries.Position for different Neurological surgeriesInstruments required for different Neurological surgeries	4 Hours
9.	Ophthalmology Surgeries	<ul style="list-style-type: none">Brief description of different Ophthalmology Surgeries.Preparation for different Ophthalmology Surgeries.Position for different Ophthalmology surgeriesInstruments required for different Ophthalmology surgeries	4 Hours
10	Otorhinolaryngologic Surgeries	<ul style="list-style-type: none">Various Otorhinolaryngologic Surgeries and Instruments required for themPreparation of trolleys for ENT surgeriesPreparation of different dilutions of adrenaline: 1: 50,000, 1: 100,000, 1: 200,000 etc.	4 Hours
11.	Reconstructive Surgeries.	<ul style="list-style-type: none">Brief description of different Reconstructive Surgeries.Preparation for different Reconstructive Surgeries.Position for different Reconstructive surgeriesInstruments required for different Reconstructive surgeries	4 Hours
12	Thoracic, Cardiac, Vascular surgeries.	<ul style="list-style-type: none">Brief description of different Thoracic, Cardiac, Vascular Surgeries.Preparation for different Thoracic, Cardiac, Vascular Surgeries.Position for different Thoracic, Cardiac, Vascular surgeriesInstruments required for different Thoracic, Cardiac, Vascular surgeries	6 Hours

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PRACTICALS

- Preparation of OT for various surgeries
- Familiarization with special instruments used for various sub specialties
- Carbolization of OT
- Preparation of trolleys for various types of sub specialties of surgeries
- Cleaning, disinfection and storage of various instruments



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SEMESTER-IV

Paper – I Paper code MOTT[401]

ANAESTHESIA FOR SPECIALITY SURGERIES AND SITUATIONS

Total Hours -50

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	NEURO ANAESTHESIA	<ul style="list-style-type: none">Glasgow coma scaleSpecial investigation -CT, Angiography and MRIAnaesthesia Techniques for Neuro surgeriesReinforced Endotracheal tubesPositioning in neuro surgeryI.C.P.Air embolism	4 Hours
2.	OBSTETRIC ANAESTHESIA	Differences between a pregnant and a normal lady <ul style="list-style-type: none">Risks for anaesthesia.Precautions to be takenCheck listRegional vs General anaesthesiaResuscitation of the new born, APGAR scorePreparation for emergency LSCS Emergencies <ul style="list-style-type: none">Manual removal of placentaA.P.H.P.P.H.Ruptured uterusEctopic pregnancy	8 Hours
3.	PAEDIATRIC ANAESTHESIA	Check list for pediatric Anaesthesia <ul style="list-style-type: none">Premedication – modes, drugs, dosesPediatric circuitPain management	4 Hours
4.	ENT ANAESTHESIA	<ul style="list-style-type: none">Anaesthesia for adenotonsillectomyAnaesthesia for mastoidectomyAnaesthesia Bronchoscopy and oesophagoscopyNasal Intubation – Preparation and TechniqueRAE endotracheal tubes : Indications	4 Hours
5.	CARDIAC ANAESTHESIA	<ul style="list-style-type: none">ArrhythmiasAnginaDyspneaECH, cardiography/ TEEAngiographySetting up of monitoring systemMonitoring - invasive and non – invasiveTransferring the patient to ICU.Chest tube management	6 hours



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6.	ANAESTHESIA OUTSIDE THE O.T.	<ul style="list-style-type: none">• CathLab• Radiology• E.C.T.• Risk and preventivemeasures	4 Hours
7.	DAY CARE ANAESTHESIA	<ul style="list-style-type: none">• Specialfeatures• Patientselection• Advantages• Disadvantages• AnaesthesiaTechniques	4 Hours
8.	GERIATRIC ANAESTHESIA	<ul style="list-style-type: none">• Physiological changes• Diseases ofaging• Nervoussystem	4 Hours
9.	ANAESTHESIA FOR TRAUMA & SHOCK	<ul style="list-style-type: none">• Resuscitation• Pre-op investigation / assessment• Circulatory management• Management of anaesthesia• Rapid sequence induction – Cricoid pressure	4 Hours
10.	THORACIC ANAESTHESIA	<ul style="list-style-type: none">• Pulmonary function tests and lung volume• Bed sidetests• One lungAnaesthesia,• Double lumen tubes, Bronchial blockers	3 Hours
11.	POSTOPERATIVE PROBLEMS	<ul style="list-style-type: none">• Nausea & Vomiting• Sore throat• Laryngeal granuloma• Neurological complications.• Awareness• Vascular complications.• Trauma to teeth• Headache• Backache	5 Hours

PRACTICALS

- Familiarization with all instruments used in different types of surgeries
- Positions of patients and OT table for various surgeries
- Use of double lumen ETT, bronchial blockers,
- Preparations for anaesthesia and surgeries for different age groups
- Resuscitation in trauma, Care of patients in PACU



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SEMESTER-IV

Paper – II

Paper code -

MOTT [402]

BASIC INTENSIVE CARE

Total Hours -50

S. No.	Topic	Teaching Guidelines	Teaching Hours
1.	MONITORING AND DIAGNOSTIC PROCEDURES IN I.C.U.	<ul style="list-style-type: none">• Clinical Monitoring• Central Venous access.• ECG monitoring.• NIBP – Cuff sizes and application• Multipara meter monitor – Normal values• PCT, Surgical Tracheostomy• ICD• USG	6 Hours
2.	GENERAL CARE OF PATIENT IN I.C.U.	<ul style="list-style-type: none">• Care of unconscious patient• Syringe pump / Infusion Pump uses, infusion rate.• Vascular lines - arterial, venous line• Radiography / USG• Physiotherapy - chest physiotherapy• Oxygen Therapy• Sources of oxygen• Oxygen Delivery devices• Oxygen Toxicity	6 Hours
3	INFECTIONS IN ICU	<ul style="list-style-type: none">• Ventilator Associated Pneumonia (VAP)• Prevention of infection in ICU	4 Hours
4.	ACID - BASE DISORDERS AND FLUID BALANCE	<ul style="list-style-type: none">• ABG analysis, Normal ABG value• Arterial cannulation• Crystalloid and colloids: Differences, indications• Monitoring drip rate• Fluid balance : Intake/output chart	5 hours

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5.	COMMON DRUGS USED IN ICU	<ul style="list-style-type: none">• Inotropic support• Vasodilator drugs.• Vasopressor• Antiarrhythmic drugs• Bronchodilators• Sedatives & Hypnotic• Anticoagulant drugs• Anticonvulsants• Neuromuscular blockers	6 Hours
6.	TRAUMA	<ul style="list-style-type: none">• Head Injury• Glasgow coma score (GCS)• Fluid Resuscitation in Trauma• Polytrauma	3 Hours
7.	BLOOD TRANSFUSION	<ul style="list-style-type: none">• Blood Grouping and cross matching• Whole blood, packed RBC• Blood components and indications• Technique of blood transfusion• Complication of Blood Transfusion• Anaphylactic reaction	5 Hours
8.	ICU VENTILATORS	<ul style="list-style-type: none">• Basic respiratory parameters• Basic ventilators settings and modes• Monitoring and alarms• Weaning process• Complications of ventilator• Care of patient on ventilator• Suctioning of ETT / Tracheotomy tube• NIV : CPAP, BIPAP• Handling and disinfection of ventilators• Tracheotomy – Indications, Technique, care• Decannulation Procedure	6 Hours
9.	NUTRITION ICU PATIENT	<ul style="list-style-type: none">• NG tube insertion• Parenteral Nutrition• Types, Techniques, complications.• Enteral Nutrition	4 Hours

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10.	CARDIOPULMONARY RESUSITATION	<ul style="list-style-type: none">• Causes of cardiac arrest and types• Basic life support outside hospital• AMBU Bag• BLS Protocol for adult / children• BLS Protocol for infants• Chest compression technique• Use of AED / Defibrillator	5 Hours
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PRACTICALS

- Familiarization with handling and use of various items and equipments used in ICU Care of unconscious patients
- Care of patient on ventilator, ventilator alarms Preparation of trays for various emergency procedures Modes of ventilation, ventilator settings.
- Use of defibrillator and AED
- Handling of ABG analyzer, ABG analysis, normal values
- Vital parameters, normal ranges, maintenance of monitors and other equipment

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SEMESTER-IV
PAPER - III
DISSERTATION

The research project is to be carried out over a period of approximately 12 months and will be carried out in the hospitals, subject to approval by all concerned. Each student will select research project with their respective supervisors. The projects will be selected such that a student can reasonably be expected to make an original contribution to the chosen area of research within the time period allotted. The purpose of the project is to provide the student with training in academic research and acquisition of practical skills, including the design of a research project, planning of experiments, dealing with practical problems, recording of, presenting and analyzing data.

SCHEME OF EXAMINATION

1st SEMESTER

SUBJECT	PAPER CODE	INTERNAL ASSESSMENT	UNIVERSITY EXAMS	TOTAL
ANATOMY	MOTT-101	20	80	100
PHYSIOLOGY & BIOCHEMISTRY	MOTT- 102	20	80	100
CLINICAL PHARMACOLOGY	MOTT - 103	20	80	100
CLINICAL PATHOLOGY AND MICROBIOLOGY	MOTT -104	20	80	100
PRACTICAL	MOTT- P1	20	80	100
TOTAL				500

2nd SEMESTER

SUBJECT	PAPER CODE	INTERNAL ASSESSMENT	UNIVERSITY EXAMS	TOTAL
BASIC MEDICINE AND MEDICAL ETHICS	MOTT-201	20	80	100
BASICS OF ANESTHESIA	MOTT- 202	20	80	100
BASICS OF SURGERY	MOTT - 203	20	80	100
RESEARCH METHODOLOGY AND BIOSTATISTICS	MOTT -204	20	80	100
PRACTICAL	MOTT- P2	20	80	100
TOTAL				500

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3rd SEMESTER

SUBJECT	PAPER CODE	INTERNAL ASSESSMENT	UNIVERSITY EXAMS	TOTAL
ANESTHESIA EQUIPMENTS	MOTT - 301	20	80	100
BASIC PROCEDURES AND TECHNIQUES	MOTT - 302	20	80	100
PERIOPERATIVE ANESTHESIA CARE AND PREPARATION	MOTT - 303	20	80	100
ADVANCED SURGERIES	MOTT - 304	20	80	100
PRACTICAL	MOTT- P3	20	80	100
TOTAL				500

4th SEMESTER

SUBJECT	PAPER CODE	INTERNAL ASSESSMENT	UNIVERSITY EXAMS	TOTAL
ANESTHESIA FOR SPECIALITY SURGERIES AND SITUATIONS	MOTT - 401	20	80	100
ADVANCED INTENSIVE CARE	MOTT - 402	20	80	100
DISSERTATION	MOTT - 403		100	100
PRACTICAL	MOTT- P4	20	80	100
TOTAL				400

Schandola



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Faculty, Staff & Area Layout-

Department-wise and year-wise requirement -

(i) Teaching staff (full time) - It is recommended that a **faculty and student ratio of 1:10 for UG** to be followed.

Required teaching staff year wise Masters Courses for 15 intake

Master course year wise	I st Year	II nd Year	Total
Principle/Dean	01	--	01
Professor	01	01	02
Associate Professor	01	01	02
Assistant Professor	03	03	06

(ii) Technical staff

Technical Staff for Master courses

Technical staff	Number
Technician	01
Technical Assistant	01

(iii) Administrative staff

Administrative Staff	Number
Administrative officer	01
Office superintendent	01
PA to Principal	01
Accountants/Cashier	01

(iv) Ancillary staff

Ancillary Staff	Number
Academic clerk	02
Record clerk	03
Librarian	01
Library attendant	02
Steno typist	02
Lab attendant	02
Classroom attendant	04
Office attendant	02

कुलपति
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उत्तर प्रदेश, लखनऊ
12/4/20



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Peon	02
Security Guard	02
Driver	01
Sweeper	05

(v) Planning and layout - master plan, layouts and elevation and floor wise area calculation

Space allotment	Upto 50 intake	51 to 100 intake	No of units	Total area required in sq.ft
Administrative office	500	1000	1	500/1000
Director/dean/principal/H.O.D.'s office	400	400	1	400
Professor's office	150 per unit	150 per unit	3/4/6	450/600/900
Associate Professor's Office	100 per unit	100 per unit	1/4/6/11	100/400/600/1100
Assistant Professor's Office	75 per unit	75 per unit	3/8/9/13/22	225/600/675/975/1650
Conference room	300	500	1	300/500
Mini auditorium	1500	2500	1	1500/2500
Class Rooms	750	1200	4	3000/4800
Student Common room (Girls)	1000	1500	1	1000/1500
Student common room (Boys)	250	300	1	250/300
Library with reading room	1200	2000	1	1200/2000
Discussion/ Interaction room	200	300	1	200/300
Hostels for Girls	Mandatory	Mandatory	Separate or shared with Medical college	
Hostels for Boys	Mandatory	Mandatory	Separate or shared with Medical college	
Core laboratories	1200	1500	2	2400/3000
Clinical skill/demonstration OT lab	1200	1500	1	1200/1500
Sterile Supply demonstration Lab	1200	1500	1	1200/1500
Human Anatomy Lab	1200	1500	1	1200/1500
Human Physiology Lab	1200	1500	1	1200/1500
Indoor department	1200	1200	1	1200
Outdoor department as per work load	5000	7000	1	5000/7000
Recreational Area	1000	1200	1	1000/1200

(Handwritten signatures and initials)