

M.S. Ramaiah University of Applied Sciences

New BEL Road, MSR Nagar, Bangalore – 560054



**RAMAIAH
UNIVERSITY**
OF APPLIED SCIENCES

PO, PSO & CO

Programme: MD in Anaesthesia

Programme Code: 136

Programme Outcome (PO)

Programme Specific Outcome (PSO)

Course Outcomes (CO)

Shalini

Principal and Dean

M.S. Ramaiah Medical College and Hospital
M.S. Ramaiah University of Applied Sciences
Bangalore - 560054



Ramaiah Medical College (RMC)

Programme Outcomes

Post Graduate Programme: MD in Anaesthesia

Programme objectives (PO) for MD General Medicine Postgraduate students:

- PO1. Develop the knowledge, skills and attitude to be a competent anaesthesiologist (C, P).
- PO2. Demonstrate a commitment to excellence and continuous professional development with integrity, compassion and sensitivity to patient care. (A)
- PO3. Acquire and develop the knowledge, skills and attitude required to be a competent and ethical researcher and teacher. (A, C, P)
- PO4. Be highly competent anaesthesiologist with broad range of skills that will enable him/her to practice anaesthesiology independently (P)

Programme Specific Outcomes (PSOs)

Programme specific outcome (PSO) for MD in Anaesthesia Postgraduate students

- PSO1 - The student should have fair knowledge of basic sciences (Anatomy, Physiology, Biochemistry, Microbiology, Pathology, Pharmacology, Statistics and Physics) as applied to Anaesthesia (C)
- PSO2- He/she should be fully conversant with the bedside procedures (diagnostic and therapeutic) and have knowledge of latest diagnostics and therapeutics procedures available including radiological methods. (C, P)
- PSO3 - She/he is also expected to know the principles of research methodology and modes of consulting library. She/he should attend conferences, workshops and CMEs regularly to upgrade his/her knowledge. (C, P)
- PSO4- The student should learn the basic methodology of teaching and develop competence in teaching medical/paramedical students. The student should be familiar with the latest teaching (computer and power point presentation) modes including simulators training and evidence based medical education. (C, P)
- PSO5- The student should develop attitude that leads to appropriate communication with colleagues to function in a group in Operating Room /Intensive Care Unit, and develop the ability to function as a leader in the operating room. (A)

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Course Outcomes (COs)

Course Title & Code: Basic Sciences as applied to Anesthesiology (MDC537A)

Subjects At the end of the course, the students should be able to:

- CO-1. Be well versed with anatomy and physiology of respiratory, cardiovascular, neurologic, hepatobiliary, renal, endocrine, pregnancy, haematological, neuromuscular, regulation of temperature and metabolism, stress response, cerebral blood flow and ICP, central, autonomic and peripheral nervous systems, metabolic response to stress and trauma (C)
- CO-2. Be well versed with General principles, concepts of pharmacokinetics and pharmacodynamics of various drugs used under anaesthesia and also, drug interactions with the other drugs taken concomitantly by the patient and anaphylactoid reactions. (C)
- CO-3. Principles of physics' that govern functions of basic anaesthesia delivery equipment, airway devices, fibreoptics, LASERs, Pacemakers and defibrillators, monitoring equipment (C)
- CO-4. Have detailed knowledge about functioning and usage of anaesthesia workstation, equipment and instruments (C, P)

Course Outcomes (COs)

Course Title & Code: Anaesthesia in relation to associated systemic and medical diseases (MDC538A)

Subjects At the end of the course, the students should be able to:

- CO-1. Be well versed with importance of pre-anaesthetic assessment and optimization of a patient and peri-operative management of patients requiring surgery of different organs / systems esp. airway (croup, angio-oedema, foreign body, etc.), lung, liver, spine, cardiac, brain, orthopaedic, abdominal, etc. (A, C, P)
- CO-2. Be well versed with basic life support, advanced cardiac, trauma life support, and neonatal resuscitation according to latest guidelines (C, P)
- CO-3. Should be well versed in management of post-operative patients (C, P)
- CO-4. Performance of various regional anaesthetic technique including centralneuraxial blocks, peripheral nerve blocks and sympathetic nerve blocks. (C, P)
- CO-5. Be well versed with basic and advanced airway management and administration of general anaesthesia (C, P)

Course Outcomes (COs)

Course Title & Code: Anaesthesia in relation to subspecialties/super specialties (MDC539A)

Subjects At the end of the course, the students should be able to:

- CO-1. Demonstrate practice of Cardio vascular and Thoracic Anaesthesia (C, P)
- CO-2. Demonstrate practice of Neuro Anaesthesia (C, P)
- CO-3. Demonstrate practice of Onco Anaesthesia (C, P)
- CO-4. Demonstrate practice of Paediatric Anaesthesia (C, P)
- CO-5. Demonstrate practice of Transplant anaesthesia (C, P)
- CO-6. Demonstrate practice of Obstetric Anaesthesia (C, P)
- CO-7. Demonstrate practice of Anaesthesia outside operating room (C, P)



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Course Outcomes (COs)

Course Title & Code: Intensive Care Medicine, Pain Medicine and Recent advances. (MDC540A)

Subjects At the end of the course, the students should be able to:

- CO-1. Recognizing the critically ill patient who needs intensive care -trauma, burns, all types of shock, sepsis, SIRS and ARDS, infectious diseases (HIV, Hepatitis, COVID-19 and others), poisoning, snake bite envenomation (and others), drug overdose and toxicity and patients with metabolic disturbances. (C,P)
- CO-2. Understanding of the operation of mechanical ventilators including different ventilatory modalities non-invasive ventilation, complications and modes of weaning (C,P)
- CO-3. Know the multidisciplinary approach to chronic pain management including cancer pain management, treatment based on WHO treatment ladder(A,C)
- CO-4. Practice different modalities of chronic pain management - physical therapy, psychotherapy, (including cognitive behavioural approaches), neuro- ablation, neuro-augmentation, spinal opioid, interventional neuro-blockade, non-opioid analgesia (C,P)

Course Outcomes (COs)

Course Title & Code: Thesis- Anaesthesia (MDP510A)

Subjects At the end of the course, the students should be able to:

- CO-1. Should be introduced to basic research methodology so that he/she can independently conduct fundamental and applied research and he/she should independently write the thesis in accordance with the prescribed instructions as expected of international standards
- CO-2. The student should demonstrate integrity, accountability, respect, compassion and dedicated patient care and a commitment to excellence, continuous professional development and ethical principles relating to research conduct and research publication as applicable to all the specific courses


Registrar
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