



SHRI
DHARMASTHALA
MANJUNATHESHWARA
UNIVERSITY

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**ORDINANCE GOVERNING
CRITICAL CARE MEDICINE
FELLOWSHIP (Post MD)
CURRICULUM 2024-25**

|| Om Shri Manjunathaya Namaha ||



Edition Year : 2024-25

Published by

SHRI DHARMASTHALA MANJUNATHESHWARA UNIVERSITY

(A State Private University established under the Shri Dharmasthala Manjunatheshwara University
Act No 19 of 2018 of Government of Karnataka and Notification No. ED 261 URC 2018 dated 19th December 2018)

Manjushree Nagar, Sattur, Dharwad - 580 009, Karnataka, India
6th Floor, Manjushree Block SDM Medical College Campus

Tel. :+91 836 2477511, 2321117, 8197466841 & 8861475842

Email: sdmuo@sdmuniversity.edu.in & registrar@sdmuniversity.edu.in Web.: sdmuniversity.edu.in



**SHRI
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THE LOGO

Poojya Dr. D. Veerendra Heggade, Hon'ble Chancellor of the University, while searching for an appropriate Logo for the University, saw a photograph picked from Temple Architecture showing Wings of a Bird, sculpted in Indian style and wanted it to be incorporated in the logo for the University, as the Wings symbolize 'Spreading of Knowledge beyond Boundaries'. Further it was felt that the Central theme of the logo should be 'Rudra' (The Linga) with three wings on each side. In this way, the logo of the University was conceptualized.

Hence:

1. The central part represents Rudra who Demolishes Darkness.
2. The Three horizontal lines on The Linga stand for Samyak Darshan (Right Belief), Samyak Gyan (Right Knowledge) and Samyak Charitra (Right Conduct).
3. The Wings symbolize spreading of Knowledge across the boundaries.
4. Base line "Truth Liberates" highlights the Purpose of Education: to liberate oneself unconditionally. It shows that it is not discipline, nor knowledge nor the efforts to freedom that liberate but Truth is what liberates you from all your conditioning and ignorance.

The overall significance of Shri Dharmasthala Manjunatheshwara University's Logo is:

Darkness of ignorance is destroyed by the flow of knowledge to bring Liberty to everyone, by realizing the truth. And, it should spread globally without the boundaries as hindrance.





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VISION

Shri Dharmasthala Manjunatheshwara University will set the highest standards of teaching and learning by awakening the intelligence of the students and nurturing the creativity hidden in them by creating an environment where the ancient wisdom blends with modern science, to transform them into whole human beings to face the challenges.

MISSION

- To ensure that the journey of education is inspiring, pleasant and enjoyable.
- Attract the best of teachers and students.
- Achieve high principles of trust, love and spirituality in the students.
- Create a collaborative, diverse and exclusive community.
- Transform the student of today to be a leader of tomorrow and a better human being.
- Produce passionate teachers.
- Evolve innovative teaching techniques.
- Create a peaceful environment.
- Prepare the student to face the social challenges.
- Create a University of which the Nation is proud of.
- Be an effective partner in Nation Building.
- Create an Eco-friendly University.
- Create a University based on the principles of beauty, love and justice.

||Om Shanti! Om Shanti! Om Shanti||





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6th floor, Manjushree Building, SDM College of Medical
Sciences & Hospital Campus, Sattur, Dharwad - 580009
Tel. No : +91 836 2477511, 2321115, 2321117
Fax: +91836 2463400
Email: registrar@sdmuniversity.edu.in

SDMU/ACAD/MED/Notif-348a/147a/2024

Date: 13-03-2024

NOTIFICATION

Ordinance Governing Curricula of Fellowship in Critical Care Medicine

Ref: Minutes of the 8th Meeting of Academic Council held on 10-11-2023

In exercise of the powers conferred under Statutes 1.4 (Powers and functions - Para ix & x) of the Shri Dharmasthala Manjunatheshwara University, approval of the Academic Council of Shri Dharmasthala Manjunatheshwara University is hereby accorded for the **Ordinance Governing Curricula of Fellowship in Critical Care Medicine**.

The ordinance shall be effective from the date of notification.

REGISTRAR

REGISTRAR

Shri Dharmasthala Manjunatheshwara
University, Dharwad

To: The Principal, SDM College of Medical Sciences & Hospital.

Copy for information to:

1. Hon'ble Chancellor, Shri Dharmasthala Manjunatheshwara University
2. Vice Chancellor, Shri Dharmasthala Manjunatheshwara University
3. Director Administration, Shri Dharmasthala Manjunatheshwara University
4. Pro Vice-Chancellor, Shri Dharmasthala Manjunatheshwara University
5. Controller of Examinations, Shri Dharmasthala Manjunatheshwara University
6. Chairperson, Board of Studies - Medical PG Clinical (Medicine & Allied Subjects)
7. University Records file



Curriculum details of Critical Care Medicine Fellowship (Post MD)

Training Programme in

SDM COLLEGE OF MEDICAL SCIENCES AND HOSPITAL

SDM College of Medical Sciences and Hospital is a 1200-bed private healthcare institution, offering well-established undergraduate and postgraduate programs since 2003 and 2011, respectively.

Critical Care Medicine is recognized as a super-specialty discipline. Our critical care unit is distinguished by its state-of-the-art infrastructure, incorporating advanced monitoring technologies and life-saving therapeutic interventions. The unit is staffed by highly trained healthcare professionals who provide high-quality, evidence-based care to critically ill patients. The majority of admissions comprise critically ill individuals with complex medical and surgical conditions. Our services are strengthened by exceptional diagnostic departments, including Biochemistry, Pathology, Microbiology, and Radiology, each offering expedited reporting through advanced electronic systems to facilitate efficient and uninterrupted patient care.

The Post-MD Critical Care Medicine Fellowship is a two-year comprehensive training program designed to equip postgraduate students with in-depth experience in the diagnosis and management of patients with acute, severe, and life-threatening medical and surgical conditions. The curriculum focuses on developing a thorough understanding of critical care principles, including patient management strategies, effective integration of clinical information, and the coordination of critical care services within the broader healthcare

environment. Trainees will gain expertise in managing a diverse case-mix population, preparing them to deliver high-quality, evidence-based critical care in complex and multidisciplinary settings.

Eligibility:

Post MD in Medicine, Anesthesia, Emergency Medicine, Pulmonary Medicine
Obtained from MCI recognized colleges.

Selection:

The selection process sole discretion of Teacher and Institution.Candidates

Salary:

Equivalent to senior registrar pay

Enrollment: start date 1st of may last date 30th of may

Eligibility of Appearing in exam of Fellowship:

Candidates are eligible to appear for the fellowship exam after completing two years training in critical caremedicine.

Mandatory requirements to be completed prior exam:

- Certificate from the teacher stating satisfactory completion of training.
- Students log book, duly signed and certified by teacher.
- Candidates with a basic qualification in medicine or allied subjects should undergo training for atleast 3 months in anaesthesia with emphasis on airway management and use of anesthetic drugs
- An oral / poster presentation national conference during the course duration.

- The candidate should have his/ her work published in peer reviewed / indexed journal (he / she should be 1st or 2nd or corresponding)
- An audit is mandatory- it should be submitted by the candidate along with the exam form. If the candidate has chosen to conduct the research during the course tenure, then the research submitted along with the form. And it should be concluded with results and conclusion.

Note: Within 90 days of enrollment of course, candidates must submit their research proposal to the college countersigned by the teacher.

The structure of the fellowship exam:

Exam will be conducted by Four examiners in an ICU setting & will include Theory examination MCQ Based-100 MCQ

Part I: 3 clinical cases include communications (30 Marks)

Part II: 4 stations (40 Marks)

1. Hemodynamics
2. Investigations
3. Log book, Audit, Clinical appraisal of Research paper.
4. Ventilation

Passing Criteria – It is mandatory to obtain a minimum of 50% separately in both part I and part II.

1. Candidates have to clear theory exam, for being eligible for appearing for practical exam.
2. Trainee who passes theory but fail the practical exam may make ONE more attempt at Practical exam(within two years of completion of the theory exam)
3. Trainee has maximum 2 attempts for theory exam(within one year of completion of the course)

Curriculum:

Based on CoBaTrICE syllabus.

Curriculum divided in to 11 domains (not included pediatric domain)

1. Resuscitation and initial management of the acutely ill patient
2. Diagnosis: assessment, investigation, monitoring and data interpretation
3. Disease management
 - Acute disease
 - Co-morbid disease
 - Organ system failure
4. Therapeutic interventions / organ system support in single or multiple organfailure
5. Practical procedures
 - Respiratory system
 - Cardiovascular system
 - Central nervous system
 - Gastrointestinal system
 - Genitourinary system

6. Peri-operative care
7. Comfort and recovery
8. End of life care
9. Transport
10. Patient safety and health systems management
11. Professionalism
 - Communication skills
 - Professional relationships with patients and relatives
 - Professional relationships with members of the health care team
 - Self-governance

DOMAIN COMPETENCY STATEMENT

1. RESUSCITATION AND INITIAL MANAGEMENT OF THE ACUTELY ILL PATIENT

- 1.1 Adopts a structured and timely approach to the recognition, assessment, and stabilization of the acutely ill patient with disordered physiology
- 1.2 Manages cardiopulmonary resuscitation
- 1.3 Manages the patient post-resuscitation
- 1.4 Triage and prioritizes patients appropriately, including timely admission to ICU
- 1.5 Assesses and provides initial management of the trauma patient
- 1.6 Assesses and provides initial management of the patient with burns
- 1.7 Describes the management of mass casualties

2. DIAGNOSIS: ASSESSMENT, INVESTIGATION, MONITORING AND DATA INTERPRETATION

- 2.1 Obtains a history and performs an accurate clinical examination
- 2.2 Undertakes timely and appropriate investigations
- 2.3 Describes indications for echocardiography (transthoracic / transesophageal)
- 2.4 Performs and interprets transthoracic cardiac ultrasound for the recognition and assessment of left ventricular and right systolic failure, contraction pattern and dilation and pericardial tamponade
 - a) Performs and interprets ultrasonographic assessment of the lungs and pleura for the recognition and assessment of consolidation, pleural effusion and pneumothorax.
 - b) Performs and interprets ultrasonographic assessment of the abdomen to assess intraperitoneal free fluid, hydronephrosis and bladder volume.
 - c) Performs and interprets venous ultrasound examination to assess for deep venous thrombosis and to aid vascular access (arterial and venous)
- 2.5 Performs electrocardiography and interprets the results
- 2.6 Obtains appropriate microbiological samples and interprets results
- 2.7 Obtains and interprets the results from blood gas samples
- 2.8 Interprets chest x-rays
- 2.9 Liaises with radiologists to organize and interpret clinical imaging
- 2.10 Monitors and responds to trends in physiological variables
- 2.11 Integrates clinical findings with laboratory investigations to form a differential diagnosis

3. DISEASE MANAGEMENT

ACUTE DISEASE

- 3.1 Manages the care of the critically ill patient with specific acute medical conditions

CHRONIC DISEASE

- 3.2 Identifies the implications of chronic and co-morbid disease in the acutely ill patient

ORGAN SYSTEM FAILURE

- 3.3 Recognizes and manages the patient with circulatory failure
- 3.4 Recognizes and manages the patient with, or at risk of, acute renal failure
- 3.5 Recognizes and manages the patient with, or at risk of, acute liver failure
- 3.6 Recognizes and manages the patient with neurological impairment
- 3.7 Recognizes and manages the patient with acute gastrointestinal failure
- 3.8 Recognizes and manages the patient with acute respiratory failure and acute respiratory distress syndrome (ARDS)
- 3.9 Recognizes and manages the septic patient
- 3.10 Recognizes and manages the patient following intoxication with drugs or environmental toxins
- 3.11 Recognizes life-threatening maternal peripartum complications and manages care

4. THERAPEUTIC INTERVENTIONS / ORGAN SYSTEM SUPPORT IN SINGLE OR MULTIPLE ORGAN FAILURE

- 4.1 Prescribes drugs and therapies safely
- 4.2 Manages antimicrobial drug therapy
- 4.3 Administers blood and blood products safely
- 4.4 Uses fluids and vasoactive / inotropic drugs to support the circulation
- 4.5 Describes the indication and use of mechanical assist devices for circulatory or respiratory assist
- 4.6 Initiates, manages, and weans patients from invasive and non-invasive ventilatory support
- 4.7 Initiates, manages, and weans patients from renal replacement therapy
- 4.8 Recognizes and manages electrolyte, glucose, and acid-base disturbances
- 4.9 Provides nutritional assessment and support

5. PRACTICAL PROCEDURES

RESPIRATORY SYSTEM

- 5.1 Administers oxygen using a variety of administration devices
- 5.2 Performs fiberoptic laryngoscopy
- 5.3 Performs emergency airway management
- 5.4 Performs difficult and failed airway management according to evidence-based protocols
- 5.5 Performs endotracheal suction
- 5.6 Performs fiberoptic bronchoscopy and BAL in the intubated patient
- 5.7 Performs percutaneous tracheostomy

5.8 Performs thoracocentesis via a chest drain

CARDIOVASCULAR SYSTEM

5.9 Performs peripheral venous cannulation

5.10 Performs arterial cannulation

5.11 Describes a method for surgical isolation of vein / artery

5.12 Performs ultrasound techniques for vascular localization

5.13 Performs central venous cannulation

5.14 Performs defibrillation and cardioversion

5.15 Performs cardiac pacing (transvenous or transthoracic)

5.16 Describes how to perform pericardiocentesis

5.17 Demonstrates a method for measuring cardiac output and derived hemodynamic variables

CENTRAL NERVOUS SYSTEM

5.18 Performs diagnostic lumbar puncture

5.19 Manages the administration of analgesia via an epidural or peripheral catheter

GASTROINTESTINAL SYSTEM

5.20 Performs gastric tube placement

5.21 Performs abdominal paracentesis

5.22 Describes the indication and use of Sengstaken tube (or equivalent) placement

5.23 Describes indications for, and safe conduct of gastroscopy

GENITOURINARY

5.24 Performs urinary catheterization

6. PERI-OPERATIVE CARE

- 6.1 Manages the pre- and post-operative care of the high-risk surgical patient
- 6.2 Manages the care of the patient following cardiac surgery
- 6.3 Manages the care of the patient following craniotomy
- 6.4 Manages the care of the patient following solid organ transplantation
- 6.5 Manages the pre- and post-operative care of the trauma patient

7. COMFORT AND RECOVERY

- 7.1 Identifies and attempts to minimize the physical and psychosocial consequences of critical illness for patients and families
- 7.2 Manages the assessment, prevention, and treatment of pain, delirium, and other distress
- 7.3 Manages sedation and neuromuscular blockade
- 7.4 Communicates the continuing care requirements of patients at ICU discharge to health care professionals, patients, and relatives
- 7.5 Manages the safe and timely discharge of patients from the ICU
- 7.6 Manages the physiological support of the organ donor

8. END OF LIFE CARE

- 8.1 Manages end of life care and the process of withdrawing and withholding treatment with the multidisciplinary team
- 8.2 Discusses end of life care with patients and their families / surrogates
- 8.3 Manages palliative care of the critically ill patient
- 8.4 Recognizes criteria of brain-death and performs medical investigations accordingly

9. TRANSPORT

- 9.1 Undertakes transport of critically ill patient outside the ICU

10. PATIENT SAFETY AND HEALTH SYSTEMS MANAGEMENT

- 10.1 Leads a daily multidisciplinary ward round
- 10.2 Complies with local infection control measures
- 10.3 Identifies environmental hazards and promotes safety for patients and staff
- 10.4 Identifies and minimizes risk of critical incidents and adverse events, and complications
- 10.5 Organizes a case conference
- 10.6 Critically appraises and applies guidelines, protocols, and care bundles
- 10.7 Describes commonly used scoring systems for assessment of severity of illness, case mix and workload
- 10.8 Demonstrates an understanding of the managerial and administrative responsibilities of the ICM specialist

11. PROFESSIONALISM

COMMUNICATION SKILLS.

- 11.1 Communicates effectively with patients and relatives
- 11.2 Communicates effectively with members of the health care team
- 11.3 Maintains accurate and legible records / documentation

PROFESSIONAL RELATIONSHIPS WITH PATIENTS AND RELATIVES.

- 11.4 Involves patients (or their surrogates if applicable) in decisions about care and treatment
- 11.5 Demonstrates respect of cultural and religious beliefs and an awareness of their impact on decisionmaking
- 11.6 Respects privacy, dignity, confidentiality, and legal constraints on the use of patient data

PROFESSIONAL RELATIONSHIPS WITH MEMBERS OF THE HEALTH CARE TEAM

- 11.7 Collaborates and consults; promotes team-working
- 11.8 Ensures continuity of care through effective hand-over of clinical information
- 11.9 Supports clinical staff outside the ICU to enable the delivery of effective care
- 11.10 Appropriately supervises, and delegates to others, the delivery of patient care

SELF GOVERNANCE

- 11.11 Takes responsibility for safe patient care
- 11.12 Formulates clinical decisions with respect for ethical and legal principles
- 11.13 Seeks learning opportunities and integrates new knowledge into clinical practice
- 11.14 Participates in multidisciplinary teaching
- 11.15 Participates in research or audit

