

Integrated Teaching Programme- MBBS



Rajiv Gandhi University of Health Sciences, Karnataka

4th 'T' Block, Jayanagar, Bangalore - 560 041

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**Rajarajeswari Medical College & Hospital
Kambipura, Mysore Road
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Topics for Integrated Teaching Programme
during MBBS Phase - I & II course

I TERM
II TERM

ANNEXURE IV

Sl.No	Topic	Department to Organise	Department to Participate
1	Anaemia	Physiology	Physiology, Biochemistry & Pathology
2	Jaundice	Biochemistry	Physiology, Biochemistry & Pathology
3	Coronary circulation	Physiology	Anatomy, Physiology & Biochemistry
4	Malnutrition and	Biochemistry	Physiology, Biochemistry &
5	Starvation	Anatomy	Community Medicine

Sl.No	Topic	Department to Organise	Department to Participate
1	Acid base balance	Biochemistry	Biochemistry & Physiology
2	Thyroid gland	Anatomy	Anatomy, Physiology & Biochemistry
3	Pancreas	Anatomy	Anatomy, Physiology & Biochemistry
4	Stomach	Anatomy	Anatomy, Physiology & Biochemistry
5	Limbic system,	Physiology	Anatomy & Physiology
6	Emotion, learning	Physiology	Anatomy & Physiology
7	Growth and	Anatomy	Anatomy & Physiology

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COMMON AREAS FOR INTEGRATED TEACHING OF PHARMACOLOGY

Sl No	Area	Collaborating Department
1	Drugs in anaesthetic practice	Anesthesiology
2	Drug therapy of psychiatric disorders	Psychiatry
3	Principles of rational use of drugs	Medical, Pediatrics, Surgery, Obst. & Gynae.
4	The concept of essential drugs	Preventive and Social Medicine
5	Therapy of hypertension including Diuretics	Medicine and Physiology
6	Therapy of diabetes	Medicine and Physiology
7	Therapy of peptic ulcer	Medicine, Physiology and Surgery
8	Therapy of CCF	Medicine
9	Therapy for Asthma	Medicine
10	Therapy of Malaria	Medicine and Microbiology.
11	Therapy of tuberculosis	Medicine, Microbiology
12	Therapy of Leprosy	Medicine and Microbiology

OTORHINOLARYNGOLOGY

Integration

Neurosurgery – Knowledge of intracranial complications caused by diseases of ENT region (meningitis, intracranial abscess, cavernous sinus thrombophlebitis)

Ophthalmology – Knowledge of orbital complications of sinonasal disease.

General Surgery – General principal of surgical management like wound healing, acid base balance, blood transfusion and sterilization.

PEDIATRICS

Integration

The training in pediatrics should prepare the student to deliver preventive, promotive, curative and rehabilitative services for care of children both in the community and at hospital as part of a team in an integrated form with other disciplines eg. Anatomy, Physiology, Forensic medicine, Community Medicine and Physical Medicine and Rehabilitation.



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MEDICINE & ITS ALLIED SPECIALTIES

Integration

- (1) With Community Medicine and Physical Medicine and Rehabilitation to have the knowledge and be able to manage important current national health programmes, also to be able to view the patient in his/her total physical, social and economic milieu.
- (2) With other relevant academic inputs which provide scientific basis of clinical medicine e.g. anatomy, physiology, biochemistry, microbiology, pathology and pharmacology.
- (3) **Integrated Teaching:** 36 hours for group discussions, seminars etc. involving multi-speciality teachers.

PSYCHIATRY

Integration

Training in Psychiatry shall prepare the students to deliver preventive, promotive, curative and re-habilitative services for the care of patients both in the family and community and to refer advance cases to a specialised Psychiatry/Mental Hospital. Training should be integrated with the department of Medicine. Neuro-Anatomy, Behavioural Sciences and Forensic medicine

TUBERCULOSIS AND RESPIRATORY DISEASES

Integration

The broad goal of effective teaching can be obtained through integration with departments of Medicine, Surgery, Microbiology, Pathology, Pharmacology and Preventive and Social Medicine.



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SURGERY AND ITS ALLIED SPECIALITIES

Integration

The undergraduate teaching in surgery shall be integrated at various stages with different pre and para and other clinical departments,

ORTHOPAEDICS

Integration

Integration with anatomy, surgery, pathology, radiology and forensic medicine be done.

OBSTETRICS AND GYNAECOLOGY

Integration

The student shall be able to integrate clinical skills with other disciplines and bring about coordination of family welfare programme for the national goal of population control.



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External Posting - Post Graduate

MD/MS Programme



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M. D. Anesthesiology

Method of training

The training of postgraduate for degree/diploma shall be residency pattern with graded responsibilities in the management and treatment of patients entrusted to his/her care. The participation of the students in all facets of educational process is essential. Every candidate should take part in seminars, group discussions, grand rounds, case demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate should be required to participate in the teaching and training programme of undergraduate students. Training should include involvement in laboratory and experimental work, and research studies. Basic medical sciences students should be posted to allied and relevant clinical departments or institutions. Similarly, clinical subjects' students should be posted to basic medical sciences and allied speciality departments or institutions.

Rotation and Posting in other Departments

The listed knowledge and skills are to be learnt over a period of 3 years. The process is a continuous one. However the recommended period and timing of training in basic sciences, allied departments and speciality departments are given below. The total duration of postings in allied and subspecialties will be 8 months and the remaining 2 years and 4 months in the mother department.

Basic Sciences: Rotation in these departments viz., Anatomy, Physiology, Pharmacology etc. are to be done as concurrent studies during the 1st year of training. At least two hours may be spent in the first six months of the course. Basic Science relevant to Anaesthesia can be studied in the respective departments in the afternoons.

Anatomy: Special emphasis for the dissection of larynx, trachea, heart, various nerves & plexuses.

Physiology: Thorough revision of all the systems, in particular Cardio Vascular System and Respiratory System.

Pharmacology: of Drugs used in Anaesthesia and drugs used for management of systemic disease & Drug interactions.

Allied Speciality: Students should be posted ICU, ICCU, SICU (Trauma unit) and pain clinic during 2nd year of Training for 2 weeks in each, for total duration of 2 months.

Other Subspecialties of Anaesthesia:

Posting to other subspeciality departments will be during 2nd year and the duration of postings are as under;



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Cardiothoracic Surgery	--	4 weeks
Neuro Surgery	--	4 weeks
Paediatric Surgery	--	4 weeks
Cancer Surgery	--	2 weeks
Oromaxillary Surgery	--	2 weeks
Plastic Surgery	--	2 weeks
Urology	--	2 weeks
Laposcopic and Endoscopic Surgery	--	2 weeks
Anaesthesia for investigative Procedure like CT Scan, Lithotripsy, Cardiac Cath Lab	--	2 weeks

24 weeks

M. D. Dermatology, Venereology and Leprosy

Method of training

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Rotation Postings

This is essential to acquire knowledge in allied subjects as applicable to Dermatology, S.T.D. and Leprosy. It is preferable to post P.G. students to General Medicine, Paediatrics, Plastic Surgery and Psychiatry – 4 weeks each and posting to a Leprosy hospital or National Leprosy control units for 8 weeks.



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M. S. General Surgery

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Rotation and posting in other departments


The listed knowledge and skills are to be learnt over a period of 3 years. The process is a continuous one. However the recommended period and timing of training in basic subjects, allied departments and specialty departments is given below.

In the first year, during the morning session, student should work in the parent department. It is recommended that 2 years and 4 months are spent in General Surgery and 8 months in allied and specialty departments. Depending on the time and opportunities available, some of the procedures listed for second year activity can be shifted either to the first or the third year. Students must be 'on call' on a regular basis. The total duration of postings in core and other specialties will be eight months.

M. S. Ophthalmology

Method of training

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Rotation and Posting in other Departments

In institutions where subspecialties are not being usually performed, (eg. VR surgery, orbit surgery etc.), students could be deputed for a month or so in institutions in which these specialities are highly developed.

For an MS student, optional rotation postings to allied departments would include

Plastic Surgery
Neurology / Neurosurgery
Intensive Care
ENT

However, posting to these allied specialities would depend upon the head of department's discretion. The total duration of posting should not exceed 4 months.

M. S. Orthopedics

Method of training

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Rotation and posting in other depts

Basic sciences

Anatomy – one hour every week in anatomy dissection hall for 6 months in the first year

Applied subjects -posting in second year

Casualty / emergency medicine for 2 weeks
Anaesthesia for 2 weeks
Radiology including CT/MRI for one month
Neurosurgery for one month
Plastic surgery for one month
Surgical ICU/ general surgical unit for one month

Allied subjects

Posting in artificial limb centre / physical medicine and rehabilitation for one month

Training in teaching skills

Bedside clinic for undergraduates for 20 hours

Bedside clinic for first year PG by THIRD Year PG for 10 hours.

Should have attended at least one National CME during the course

Should have presented at least one paper in any of the Orthopedic conferences during the course

M. S. Otorhinolaryngology

Method of training

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Rotation posting in other Departments

Neurosurgery	4 weeks
Plastic Surgery	4 weeks
Head & Neck Oncology	4 weeks
Anesthesia	2 weeks
Cardio-thoracic Surgery	2 weeks (optional)
Speech & Hearing*	2 weeks

*Recommended Centres for Speech & Hearing:

- All India Institute of Speech & Hearing, Mysore
- National Institute of Mental Health and Neuro Sciences (NIMHANS)
- Institute of Speech & Hearing , Lingarajpuram, Bangalore


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M. D. Pediatrics

Method of training

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Rotation Postings

Core

Pediatrics	--	18 - 23 months
Neonatology	--	6 - 8 months
Intensive Care/Emergency	--	2 - 3 months

Optional Specialities (optional subject to availability) -- 6 months

- Oncology
- Neurology
- Pediatric Surgery
- Nephrology
- Cardiology
- Clinical Hematology
- Dermatology
- Pulmonology
- Gastroenterology
- Clinical Microbiology
- Community/Rural


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M. D. Psychiatry

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Rotation and Posting in other departments

Allied Subjects:

- Department of Neurology (3 months duration)
- Department of Medicine - Consultation - Liaison Psychiatry (1 month)
- Forensic psychiatry – 15 days
- Department of clinical psychology (where a separate department exists) or supervised clinical work under a clinical psychologist- 1 month duration.
- Child Psychiatry - 3 months

M. D. Radio-Diagnosis

Method of training

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Rotation Posting

Three months duration

1)	NIMHANS for exposure and interpretation of Brain and spinal cord lesions	- 4 weeks
2)	For cancer radio-diagnosis and Nuclear Medicine in an oncology Department or institute	- 2 weeks
3)	OBG and Pediatric Radio-Diagnosis	- 4 weeks
4)	Cardiology	- 2 weeks
	Total	12 weeks

M. D. Radiotherapy

Method of training

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Rotation Posting

MD Students shall be posted to other relevant departments or other centers with better and latest equipment's for a minimum period of 3 to 6 months, for completion of training in Medical and Surgical Oncology and for learning recent advances in the specialty. The student on completion of the training shall submit a report duly signed by the concerned department to the HOD Radiotherapy.



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M.D. in Tuberculosis and Respiratory Medicine

Method of training

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Rotation Postings

- i) In the parent department of TB and Respiratory Medicine 26 months
- ii) Department of Medicine - 6 months
- iii) Cardiology - 1 month
- iv) Department of Radio-diagnosis - 1 month
- v) Casualty and ICU (2 weeks each) - 1 month
- vi) Cardio-Thoracic Surgery - 1 month



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