MODULE FOR I MBBS STUDENTS OF

COMPETENCY BASED MEDICAL EDUCATION

(CBME)

July 2019

MCI Nodal Centre for Faculty Development
NHL Municipal Medical College
Ahmedabad

Introduction

The Medical Council of India has revised the undergraduate medical education curriculum so that the Indian Medical Graduate is able to recognize **"health for all" as a national goal** and should be able to fulfill his/her societal obligations.

With the competency based curriculum, the goal of medical education in India is… to prepare "Indian Medical Graduate" (IMG) possessing requisite **knowledge, skills, attitudes, values and responsiveness**, so that he or she may function appropriately and effectively as a **physician of first contact of the community** while being **globally relevant**.

Defined Roles of the Indian Medical Graduate

The GMR envisages the following roles that a graduate must perform in-order to achieve the goal of the UG medical education program

1. **Clinician:** who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.
2. **Leader and member of the healthcare team and system:** with capabilities to collect analyze, synthesize and communicate health data appropriately.
3. **Communicator:** with patients, families, colleagues and community.
4. **Lifelong learner:** committed to continuous improvement of skills and knowledge.
5. **Professional:** who is committed to excellence, is ethical, responsive and accountable to patients, community and profession.

The revised curriculum has attempted to enunciate the competencies the student must be imparted and should have learnt, with clearly defined teaching-learning strategies and effective methods of assessment. Communicating effectively and sympathetically with patients and their relatives has been visualized as a core area of the revised curriculum. These and other goals identified in the curriculum are to be implemented in all medical colleges under the ambit of Medical Council of India from August 2019 and to smoothen this process, guidelines have been prepared for its effective implementation. In response to the need for a seamless introduction of the curriculum into the Undergraduate system, all medical colleges are supported by MCI

through their Nodal and Regional Centres for Faculty Development to upgrade the facilitation skills of their faculty.

Though **Medical Council of India has provided broad framework**, it is not possible to bring complete uniformity in a vast country like India. We have made a humble effort to organize the curriculum including the new elements particularly Foundation Course & AETCOM Module, so that it can be conveniently replicated by other institutions. However, local authorities such as Universities, Colleges and faculty need to make appropriate refinements at local level to suit their local needs keeping the broad framework intact.

The main focus areas in the new curriculum are as follows:

a) **Foundation Course:** This is a one month course in the beginning of the MBBS programme to orient medical learners and provide them with requisite knowledge, communication (including electronic), technical and language skills including basic understanding of professionalism and ethics. The overall objective of foundation course would be to sensitize the learners with essential knowledge and skills which will lay a sound foundation for their pursuit of learning across the subjects in MBBS course and later on a career in medicine. (Annexure 1 – Foundation Course Timetable). This course will also sensitize the students about the health care delivery system of our country and the national health programmes implemented for prevention and control of diseases of public health importance. (Annexure 2 – Overview of National Health Programmes)

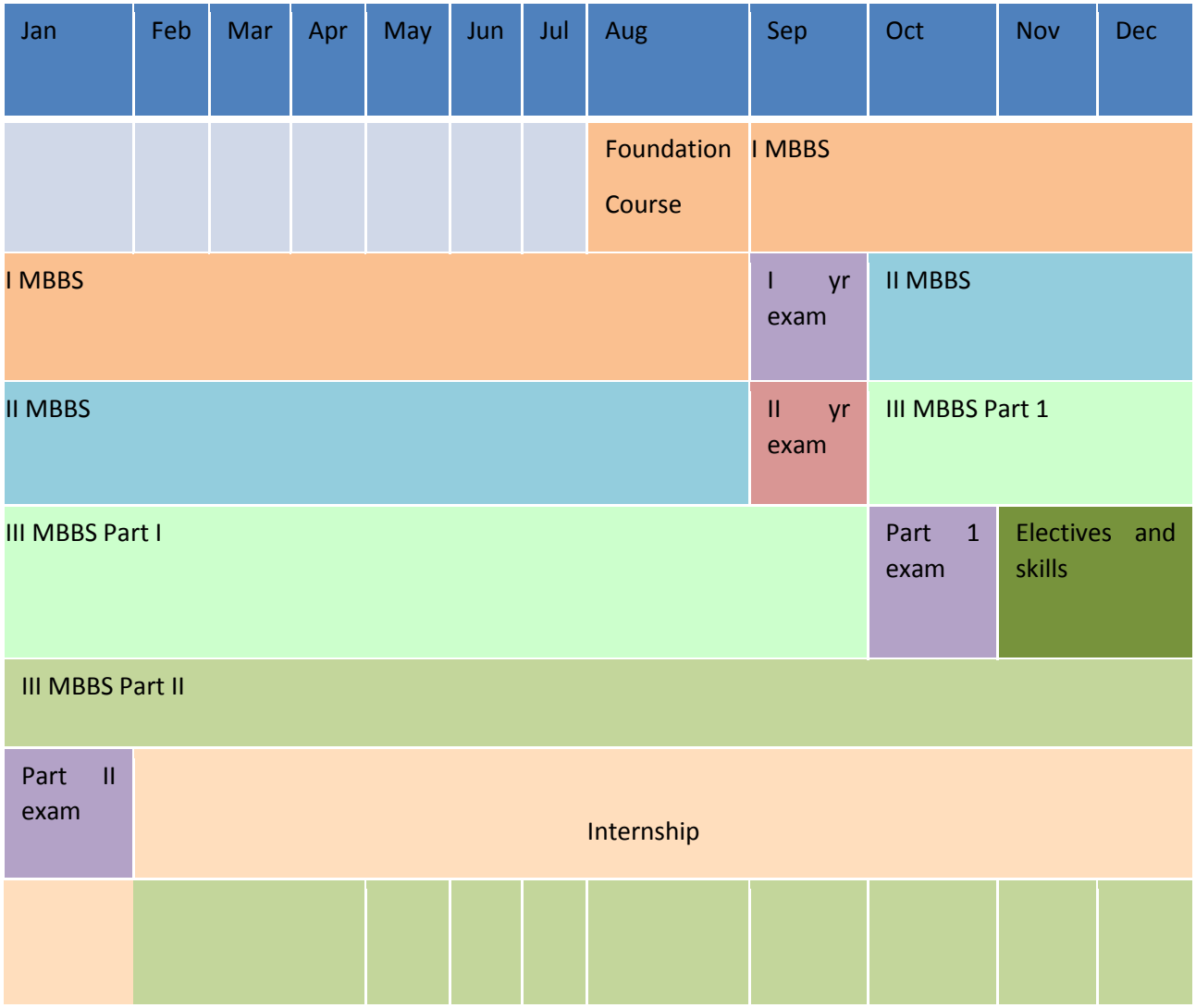
b) **Early clinical exposure**: The clinical training would start in the first year, focusing on communication, basic clinical skills and professionalism. There would be sufficient clinical exposure at the primary care level and this would be integrated with the learning of basic and laboratory sciences. Introduction of case scenarios for classroom discussion/case-based learning would be emphasized. It will be done as a coordinated effort by the pre-clinical, para-clinical and clinical faculty. (Annexure 3 – Master timetable of first MBBS)

c) **Integrated teaching and learning**: The innovative new curriculum has been structured to facilitate horizontal and vertical integration between and among disciplines, bridge the gaps between theory & practice, between hospital-based medicine and community medicine. Basic and laboratory sciences (integrated with their clinical relevance) would be maximum in the first year and will progressively decrease in the second and third year of the training when clinical exposure and learning would be dominant. The Integrated timetable of first professional year is ready (Annexure 3). In due course of time, the same would be finalized for other professional years as well.

d) **Skill development and learning (throughout curriculum):** A mandatory & desirable comprehensive list of skills (Annexure 4 – Proposed list of skills) has been planned and would be recommended for the Indian Medical Graduate. Certification of skills would be necessary before licensure.

e) **Electives:** The aim of adding electives is to allow flexible learning options in the curriculum and may offer a variety of options including clinical electives, laboratory postings or community exposure in areas that students are not normally exposed as a part of regular curriculum. This will also provide opportunity for students to do a project, enhance self-directed learning, critical thinking and research abilities.

Figure 1: Time distribution of MBBS program & Examination Schedule



ANNEXURE 1 – FOUNDATION COURSE TIMETABLE

Foundation course at a glance					
Sr. N.	Subject/content	Hours (MCI)	Hours (Actual)	Coordinator	Remarks
1	Orientation (O)	30	33	Faculty Member	Conducted in 1st week of foundation course only
2	Skills Module	35	35	Faculty Member	First Aid, BLS, Learning skill, Communication skill, Bio safety and Bio hazards
3	Field visit to community health centre	8	8	Faculty Member	Will be finalized by CM Department
4	Professional Development including ethics (P & E)	40	40	Faculty Member	Beginning Part of AETCOM - Cadaveric ceremony and Research can be added
5	Sports and Extracurricular activities (ECA)	22	14 - Sports	Faculty Member	2 Hrs ECA and 4 Hrs sports per week for 4 weeks (Last two Hrs of Wed, Fri, Sat)
			08 – ECA	Faculty Member	
6	Enhancement of language/ computer skills	40	40	Faculty Member	For some elementslike CCC/CCC+ language outsourcing will be done
	Total Hours	175	178	-	-

1	* **Regarding sessions:**All the sessions will be made as interactive as possible. (with use of videos, movie, case scenarios etc)
2	* **Pre-sensitization:**will be done if allowed before all the sessions using technology(a YouTube channel & Mobile App has been created for this)
3	* **Attendance & formative assessment:**Students should have compulsory 75% attendance and 50% marks in formative assessment (by weekly reflective writing followed by constructive feedback). This will be certified by the HODs and Dean of the college in the portfolio of the students.
4	* **Foundation Course month & time:** It will be committed time & not to be used for any other curricular activity.
5	* **Summative assessment & Program Evaluation:** will be done by SAQs, monthly reflective writing, questionnaire from faculty & students etc.
6	***Reporting:** The Curriculum Committee will prepare the report and it will send to MCI as prescribed format.
7	* **Total days:** 23; 39 Hours per week; timing from 9-5 (Mon-Fri) and 9-1 (Sat); some flexibility in time table may be there for feasibility

1st Week + 1st 3 days of 2nd week (Orientation part)						
Time	1/8/2019	2/8/2019	3/8/2019	5/8/2019	6/8/2019	7/8/2019
09:00 - 10:00	Registration, Welcome speech by Dean & Ice breaking (All 4 HODs, 1st year MBBS) & Campus - A global Village Hostel allocation College & Hospital visit (visit to new super speciality Hospital, blood bank, trauma centre etc)	Introduction to Academic Departments	P & E- Being a good Medical Student (By Interactive lecture & case scenarios)	Introduction to Medical ethics (By Interactive lecture & case scenarios)	O - Academic Ambience (By hospital & college visit)	O- Immunisation requirements of health care professionals (Interactive lecture with videos by faculty from community medicine)
10:00 - 11:00		Orientation (O)- Introduction to (Library/ IT, curriculum, university exam, assessment etc)	Professional qualities and roles of a physician (sensitization by interactive lecture, immersion by case scenarios & reflection)	Commitment to lifelong learning as an important part of physician's growth (sensitization by interactive lecture, immersion by case scenarios & reflection)	Introduction to alternate health care systems & H/O Medicine (By Interactive lecture followed by hospital & college visit)	Role of nutrition, yoga, meditation& Introduction to UHP (Universal Healing Program) (with use of interactive lectures with PPTs, videos for cognitive part followed by demonstration & practice in small groups-SGTs)
11:00 - 12:00		O- Introduction to 1st year Departments (Anatomy, Physiology Biochemistry & Community Medicine all 4 depts 1/2 hour each)	Expectations of physician from society (By panel discussion)	Physician's role and responsibility to society and community	Mentorship program (sensitization by interactive lecture, immersion by case scenarios & reflective writing. Allotting mentors to the students)	Sports (students in small groups will participate in both outdoor and indoor activities as per their preferences: like- Badminton, Table tennis, Football, volleyball, chessetc. These will be supervised by sports committee)
12:00 - 01:00			Gender sensitivity in medical profession (with use of interactive lectures using PPTs, videos& movie clips)	Expectations of society & patients from doctors (By panel discussion)		
1 - 2	LUNCH BREAK					
02.00 - 03.00	Auditorium function (Oath taking White coat & cadaveric ceremony)	O- Introduction to the MBBS Program	Health care delivery system in India	National Health Programs	Bio-safety/ Needle prick injuries(by demonstration)	-
03.00 - 04.00		Interpersonal skills (sensitization by interactive lecture, immersion by case scenarios & reflection)	ECA (Music, Dance, Debate etc supervised by cultural committee)	Time and Stress management (By interactive lecture followed by SGT using case	Sports (Both indoor and outdoor games)	
04.00 - 05.00						

				scenarios)		

	* **Holiday:**4/8/2019 is Sunday
	* **Reflective writing:** of the week will be submitted by the students. It will be used as hybrid tool (TL, assessment and constructive feedback)

2nd Week + 1st 5 days of 3rd Week						
Time	8/8/2019	9/8/2019	10/8/2019	13/8/2019	14/8/2019	16/8/2019
09:00 - 10:00	Enhancement of language/ computer skills (Students will be sensitized for the need of the skills- local language, English& computes)	Proper hand washing technique (by demonstration)	Biomedical waste management (by Interactive lecture with video by microbiology faculty)	Research& ICMR STS (by Interactive lecture)	Self-Directed Learning (By SGT- small group discussions)	Field visit to PHC/ CHC (In small groups accompanied & facilitated by community medicine faculty)
10:00 - 11:00		Documentation and medical records (by demonstration)		Universal precautions (by demonstration)		
11:00 - 12:00		Language (Basic principles of effective communication with use of AETCOM module)	Language (Learning how to write reflective & narration)	Language (How to use Gujarati Language effectively)	Language (Common errors In written & spoken English)	Sports (Both indoor and outdoor games)
12:00 - 01:00						
1 - 2	LUNCH BREAK					
02.00 - 03.00	Computer skills (Basics and how to do web search by a computer science faculty- by interactive lecture and demonstration)	Computer Skills (How to make good PPT presentation? Interactive lecture by MEU coordinator)	Learning pedagogy (by Interactive lecture)	Computer Skills (Use of Microsoft excel & word effectively)	Learning strategies (by Interactive lecture)	-
03.00 - 04.00			ECA (Music, dance, debate Etc supervised by cultural committee)		Sports (Both indoor and outdoor games)	
04.00 - 05.00						

	* **Holidays:**11 and 18/8/2019 are Sunday and 17/8/2019 are holiday
	* **Reflective writing:** of the week will be submitted by the students. It will be used as hybrid tool (TL, assessment and constructive feedback)

4th Week						
Time	19/8/2019	20/8/2019	21/8/2019	22/8/2019	23/8/2019	26/8/2019
09:00 - 10:00	Skill module-1- Basic Life support & First Aid (by hands on training on Mannequins under dept of emergency medicine)	Skill module-2- Infection control in work place (by demonstration using Payton model in small groups under dept of microbiology)	Skill module-3- Disaster management skill – fire earthquake etc. (by demonstration using Payton model in small groups under hospital administration)	P& E- Consequences of unethical & unprofessional behaviour (by case scenarios)	Learning other members of health care team	Field visit to PHC/ CHC (in small groups)
10:00 - 11:00					Communication with patients and families (Interactive lecture with Videos)	
11:00 - 12:00				P& E- Team work in medical profession (Interactive lecture with Videos)		Sports (Both indoor and outdoor games)
12:00 - 01:00						
01:00 - 02:00	LUNCH BREAK					
02.00 - 03.00	Computer Skills (Judicious use of Electronic media, Cybercrime)	Computer Skills (using electronic media for useful networking)	Community based learning (By field visit)	Computer Skills (Developing website)	Peer assisted learning (by demonstration)	-
03.00 - 04.00			ECA (Music, dance, debate Etc supervised by cultural committee)		Sports (Both indoor and outdoor games)	
04.00 - 05.00						

	* **Holidays:24**/8/2019 are Sunday and 25/8/2019 are holiday
	* **Reflective writing:** of the week will be submitted by the students. It will be used as hybrid tool (TL, assessment and constructive feedback)

Last Week					
Time	27/8/2019	28/8/2019	29/8/2019	30/8/2019	31/8/2019
09:00 - 10:00	P& E- Value of integrity, honesty and respect in medical profession	Animal Ethics (By videos)	P& E- Professional behaviour, Role modelling, Evidence based learning, Portfolio, Video learning /reflection & How to perform in exams (By interactive lecture)	How to behave with your superiors & Group learning& Rights of a doctor and MCI etiquettes (By Interactive lecture & case scenarios)	Importance of attendance & Book Exhibition
10:00 - 11:00	Introduction to IEC of our institute (By interactive lecture)	Anti-ragging guidelines and introduction to anti-ragging committee of our institute (By interactive lecture)			Experience sharing by seniors How do they learn?
11:00 - 12:00	P& E- Obtaining patient consent (sensitization by interactive lecture, immersion by case scenarios & reflection)		P& E- Maintaining confidentiality (sensitization by interactive lecture, immersion by case scenarios & reflection)	Privileged communication in medical ethics&What it means to be a medical student (By Interactive lecture & case scenarios)	Personal Grooming- Self care
12:00 - 01:00					Field visit to PHC/ CHC
01:00 - 02:00	LUNCH BREAK				
02.00 - 03.00	Computer Skills (email communication CCC/CCC+ language)	Language Skills (Public speaking)	Simulation/ Assessment based learning Online learning (e-learning)	Summative theory exam & Computer Skills and sports (last 1 hour)	Monthly reflective writing submission (portfolio)
03.00 - 04.00			ECA (Music, dance, debate Etc supervised by cultural committee)		
04.00 - 05.00					

	* Contributors: All the faculties of 4 pre-clinical departments and MCI, Nodal centre, Smt NHLMMC, Ahmedabad
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ANNEXURE 2 – OVERVIEW OF NATIONAL HEALTH PROGRAMMES IN INDIA

1. National Health Mission

Communicable Diseases

1. Revised National TB Control Programme (RNTCP)
2. National Leprosy Eradication Programme
   (For video lecture on NLEP click link: http://www.ihatepsm.com/resource/national-leprosy-eradication-programme-...)
3. National Filaria Control Programme
4. National Aids Control Programme
5. Integrated Disease Surveillance Project (IDSP)
6. National Vector Borne Disease Control Programme (NVBDCP)

Non-Communicable Diseases, Injury & Trauma

1. School Health Programme
2. National Programme on Prevention and Control of Diabetes, CVD and Stroke
3. National Programme for Prevention and Control of Deafness
4. Universal Immunization Programme (RTI ACT, 2005)
5. National Cancer Control Programme
6. National Mental Health Programme
7. National Iodine Deficiency Disorder Control Programme
8. National Programme for Control of Blindness
(For video lecture on NPCB click link: http://www.ihatepsm.com/resource/national-program-control-blindness-npcb)
9. National Programme for Prevention and Control of Fluorosis (NPPCF)
10. National Tobacco Control Program
11. National Programme for Health Care of the Elderly (NPHCE)

Other programmes

1. Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)
   Ministry of Social Welfare
2. ICDS scheme
   Ministry of Social Welfare
3. Mid-day meal program
   Ministry of Rural Development
4. Rajiv Gandhi National Drinking Water Mission (RGNDWM)

National Health Mission

National Rural Health Mission was launched in 2005.
Under NRHM, financial assistance has been provided to the States/UTs for health systems strengthening which includes
o Augmentation of infrastructure,
o Human resources and programme management,
o Emergency response services,
o Mobile Medical Units,
o Community participation including
♣ Engagement of ASHAs,
♣ Involvement of Rogi Kalyan Samitis,
o Mainstreaming of AYUSH and availability of drugs and equipment

Two sub-missions,
NRHM – National Rural Health Mission (2005) – converted to 'National Health Mission' NHM (2013)
NUHM – National Urban Health Mission (2013) - to meet health care needs of the urban population with the focus on urban poor -

Components of NHM:
1. Health Systems Strengthening
o Adoption of Indian Public Health Standards (IPHS)
2. RMNCH + A: Reproductive, Maternal, Newborn, Child and Adolescent Health

Maternal Health
o Janani Shishu Suraksha Karyakaram
o Janani Suraksha Yojna

Child Health
o Rashtriya Bal Swasthya Karayakaram
o Facility based new-born and child care
o IMNCI
o Facility based IMNCI (F - IMNCI)
o Home based newborn care
o Navjat shishu suraksha karyakram
o Nutritional rehabilitation centres
o Reduction in morbidity and mortality due to ARI and diarrhoea
o Supplementation with micronutrients

Immunisation
o UIP and
o Pulse Polio programs
Adolescent Health (RKSK)
o Adolescent friendly health clinics
o Weekly Iron and Folic acid supplementation (WIFS)
o Menstrual Hygiene Scheme
Family Planning
National Disease Control Programs

<u>Goals of NHM</u>
Reduce MMR to 1/1000 live births
2. Reduce IMR to 25/1000 live births
3. Reduce TFR to 2.1
4. Prevention and reduction of anaemia in women aged 15–49 years
5. Prevent and reduce mortality & morbidity from communicable, non-communicable; injuries and emerging diseases
6. Reduce household out-of-pocket expenditure on total health care expenditure
7. Reduce annual incidence and mortality from Tuberculosis by half
8. Reduce prevalence of Leprosy to <1/10000 population and incidence to

zero in all districts
9. Annual Malaria Incidence to be <1/1000
10. Less than 1 per cent microfilaria prevalence in all districts
11. Kala-azar Elimination by 2015, <1 case per 10000 population in all blocks

National Vector Borne Disease Control Programme

For prevention and control of vector borne diseases i.e.
o Malaria,
o Dengue,
o Lymphatic Filariasis,
o Kala-azar,
o Japanese Encephalitis and
o Chikungunya

Guidelines for Indoor Residual Spray (IRS)
Using insecticide treated net (ITNS) and long lasting insecticide treated nets (LLINS)
Use of Larvivorous Fish for Vector Control
Guideline for Supply, Distribution and Communication on Long Lasting Insecticidal Nets – Orissa 2009
Guidelines on Proper Storage, Safe Handling and Disposal of Insecticides
Environmental Codes of Practice (ECoP)

Revised National TB Control Programme (RNTCP)

Testing and screening for Pulmonary TB 1.1 Testing:
• Any person with symptoms and signs suggestive of TB including cough >2 weeks, fever >2 weeks, significant weight loss, haemoptysis etc. and any abnormality in chest radiograph must be evaluated for TB.
• Children with persistent fever and/or cough >2 weeks, loss of weight / no weight gain, and/or contact with pulmonary TB cases must be evaluated for TB.
Diagnostic technology 2.1 Microbiological confirmation on sputum:
• All patients (adults, adolescents, and children who are capable of producing sputum) with presumptive pulmonary TB should undergo quality-assured sputum test for rapid diagnosis of TB (with at least two

samples, including one early morning sample for sputum smeer for AFB) for microbiological confirmation.
2.2 Chest X-ray as screening tool:
• Where available, chest X-ray should be used as a screening tool to increase the sensitivity of the diagnostic algorithm.
Treatment with DOTS
o initial intensive phase and continuation phase
o drug regimen according to the category of the patient
o follow up using sputum microscopy
o drug resistant TB treatment

National Leprosy Eradication Programme

Decentralized integrated leprosy services through general health care system
Early detection and complete treatment of new leprosy cases
House hold contact survey for Multibacillary and child cases
Early diagnosis and prompt MDT
MB case: Rifampicin, Dapsone and Clofazimine, 12 pulses in 18 months
PB case: Rifampicin and Dapson, 6 pulses in 9 months
Involvement of ASHA's for early detection and completion of MDT
Disability prevention and Medical Rehabilitation (DPMR) services
IEC for reduction of stigma and encourage self-reporting to PHCs
Intensive monitoring at PHC/CHC level

Integrated Disease Surveillance Program (IDSP)

o Integrated Disease Surveillance Programme (IDSP) was launched with World Bank assistance in November 2004 to detect and respond to disease outbreaks quickly
o Surveillance units have been established in all states/districts
o IT network connecting 776 sites in States/District HQ and premier institutes has been established with the help of National Informatics Centre (NIC) and Indian Space Research Organization (ISRO) for data entry, training, video conferencing and outbreak discussion
o Under the programme weekly disease surveillance data on epidemic

prone disease are being collected from reporting units such as sub centres, primary health centres, community health centres, hospitals including government and private sector hospitals and medical colleges.
o The data are being collected on 'S' syndromic; 'P' probable; & 'L' laboratory formats using standard case definitions
o States/districts have been asked to notify the outbreaks immediately to the system
o Media scanning and verification cell (MSVC) was established under IDSP in July 2008 to improve Event-Based Surveillance & to catch unusual health events reported in the media
o District laboratories are being strengthened for diagnosis of epidemic prone diseases

National Iodine Deficiency Disorders Control Program

o Surveys to assess the magnitude of the Iodine Deficiency Disorders.
o Supply of iodated salt in place of common salt.
o Resurvey after every 5 years to assess the extent of Iodine Deficiency Disorders and the impact of lodated salt.
o Laboratory monitoring of iodated salt and urinary iodine excretion.
o Health education & Publicity.

National AIDS Control Program

o National AIDS Control Organisation is a division of the Ministry of Health and Family Welfare that provides leadership to HIV/AIDS control programme in India through 35 HIV/AIDS Prevention and Control Societies
o The objective of NACP-I (1992-1999) was to control the spread of HIV infection
o During NACP-II (1999-2006) a number of new initiatives were undertaken
o Targeted Interventions were started through NGOs, with a focus on High Risk Groups (HRGs) viz. commercial sex workers (CSWs), men who have sex with men (MSM), injecting drug users (IDUs), and bridge populations (truckers and migrants).
o Behaviour Change Communication,

o management of STDs and
o condom promotion
o Efforts towards Infection Control and Waste Management have already been introduced under NACP Phase III
o development of guidelines on ICWM,
o training manuals, training of various categories of medical and other technical professionals,
o special focus and guidelines on needles disposal and management for IDU interventions,
o ensuring adequate supplies for Personal Protective Equipment and
o inclusion of IC activities through TI monitoring reports
o NACP phase IV is scheduled to start from April 2012
o Strategy 1: Intensifying and consolidating prevention services with a focus on (a) high-risk groups and vulnerable population and (b) general population.
o Strategy 2 Expanding IEC services for (a) general population and (b) high-risk groups with a focus on behavior change and demand generation.
o Strategy 3: Increasing access and promoting comprehensive care, support and treatment
o Strategy 4: Building capacities at national, state, district and facility levels
o Strategy 5: Strengthening Strategic Information Management Systems
o key priorities under NACP-IV are:
o Preventing new infections by sustaining the reach of current interventions and effectively addressing emerging epidemics.
o Preventing Parent-to-child transmission.
o Focusing on IEC strategies for behavior change in HRG, awareness among general population and demand-generation for HIV services
o Providing comprehensive care, support and treatment to eligible PLHIV.
o Reducing stigma and discrimination through Greater involvement of PLHIV (GIPA)
o Ensuring effective use of strategic information at all levels of programme
o Building capacities of NGO and civil society partners especially in states of emerging epidemics.
o Integrating HIV services with the health system in a phased manner.
o Mainstreaming HIV/AIDS activities with all key central- and state-level

Ministries/departments and leveraging resources of the respective departments
o Leveraging social protection and insurance mechanisms

National Programme for Control of Blindness
(lecture available at: http://www.ihatepsm.com/resource/national-program-control-blindness-npcb)
o Organizational Structure

o Strategies
To reduce the backlog of avoidable blindness
– through identification and treatment of the curable blind at all the three (primary, secondary and tertiary) levels
To develop Comprehensive Eye Care facilities in every district as the strategy for controlling blindness and not just curative, i.e. "Eye Health for All"
Upgradation of Regional Institutes of Ophthalmology (RIO's) to become centers of excellence in the sub-specialties of ophthalmology
To improve quality of service delivery by strengthening the existing infrastructure facilities and additional human resources for these
To enhance community awareness on eye care especially PREVENTIVE measures
Encourage research for prevention of blindness and visual impairment
To secure participation of Voluntary Organizations/Private Practitioners in eye Care.
Active screening of population above 50 years of age for cataract (reducing backlog)
Screening of children for refractive errors and provision of free glasses to the needy
Coverage of the underserved areas with eye care
Capacity building by improving the quality of skill of eye care providers
IEC activities for creating awareness on eye care in the community
RIO's, ophthalmology institutes and medical colleges to be improved and strengthened
District hospitals also to be strengthened by upgrading infrastructure and contractual staff and funds

Emphasis on PRIMARY eye care and establish vision centers on all PHC's
Creating Multipurpose District Mobile Ophthalmic Units for improving coverage
Vision 2020: Right to Sight
For lecture on NPCB click: http://www.ihatepsm.com/resource/national-program-control-blindness-npcb

National Mental Health Program

The Government of India has launched the National Mental Health Programme (NMHP) in 1982,
objectives:
To ensure the availability and accessibility of minimum mental healthcare for all in the foreseeable future, particularly to the most vulnerable and underprivileged sections of the population
To encourage the application of mental health knowledge in general healthcare and in social development; and
To promote community participation in the mental health service development and to stimulate efforts towards self-help in the community
The District Mental Health Program (DMHP) was launched under NMHP in the year 1996
Early detection & treatment.
1. District Mental Health Programme (DMHP) The main objective of DMHP is to provide Community Mental Health Services and integration of mental health with General health services through decentralization of treatment from Specialized Mental Hospital based care to primary health care services.
2. The DMHP envisages a community based approach to the problem, which includes:
♣ Training of mental health team at identified nodal institutions
♣ Increase awareness & reduce stigma related to Mental Health problems
♣ Provide service for early detection & treatment of mental illness in the community (OPD/ Indoor & follow up)
♣ Provide valuable data & experience at the level of community at the state & center for future planning & improvement in service & research.
♣ The team of workers at the district under the program consists of
1. a Psychiatrist,

2. a Clinical Psychologist,
3. a Psychiatric Social worker,
4. a Psychiatry/Community Nurse,
5. a Program Manager,
6. a Program/Case Registry Assistant and
7. a Record Keeper

National Program for Prevention and Control of Diabetes, CVD and Stroke

The pilot phase of the National Programme for Prevention and Control of Diabetes, Cardiovascular Diseases and Stroke (NPDCS) was launched in January, 2008

On a pilot basis, the NPDCS has been initiated in10 districts in10 States

NPDCS is aimed at prevention and control of NCDs using

o Health promotion and health education advocacy

o Early detection of people with high levels of risk factors will be done through 'opportunistic screening'.

o Capacity building of health systems at all levels will be carried out to tackle NCDs and improve the quality of care

District NCD Programmes will include 'District Health Promotion Centres' and the 'District NCD Cells' for

o Creating awareness on lifestyle related diseases with a focus on the adoption of healthy lifestyles at schools, community, work places etc. and

o Providing opportunistic screening and targeted intervention to reduce mortality and morbidity due to diabetes, CVD and stroke

NPDCS has been integrated with the National Rural Health Mission (NRHM)

For screening of diabetes, support for Glucometers, Glucostrips and lancets would be provided to the state under NRHM.

The common infrastructure/manpower envisaged can be utilized for early detection of cases, diagnosis, treatment, training and monitoring of different program such as

o National Program for Prevention Control of Cancer, Diabetes, CVDs and Stroke (NPCDCS)

o National Program for Health Care of Elderly (NPHCE)

o National Tobacco Control Program (NTCP) and
o National Mental Health Program (NMHP)

National Programme for Prevention and Control of Deafness (NPPCD)

OBJECTIVES OF THE PROGRAMME

1. To prevent avoidable hearing loss on account of disease or injury
2. Early identification, diagnosis and treatment of ear problems responsible for hearing loss and deafness
3. To medically rehabilitate persons of all age groups, suffering with deafness
4. To strengthen the existing inter-sectoral linkages for continuity of the rehabilitation programme, for persons with deafness
5. To develop institutional capacity for ear care services by providing support for equipment, material and training personnel

COMPONENTS OF THE PROGRAMME

1. Manpower training and development – For prevention, early identification and management of hearing impaired and deafness cases, training would be provided from medical college level specialists (ENT and Audiology) to grass root level workers
2. Capacity building – for the district hospital, community health centers and primary health center in respect of ENT/ Audiology infrastructure
3. Service provision–Early detection and management of hearing and speech impaired cases and rehabilitation, at different levels of health care delivery system
4. Awareness generation through IEC/BCC activities – for early identification of hearing impaired, especially children so that timely management of such cases is possible and to remove the stigma attached to deafness.

District Hospital: It is proposed to strengthen the ear care services at district level by providing manpower support such as

1. one ENT Surgeon,
2. one Audiologist,
3. one Audiometric Assistant and
4. one Instructor for hearing impaired

At each district on contractual basis

Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)

The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) was announced in 2003 with objectives of correcting regional imbalances in the availability of affordable/ reliable tertiary healthcare services and also to augment facilities for quality medical education in the country.
PMSSY has two components:
1. Setting up of AIIMS like institutions and
2. Upgradation of Government medical college institutions.
Six AIIMS-like institutions, one each in the States of
1. Bihar (Patna),
2. Chhattisgarh (Raipur),
3. Madhya Pradesh (Bhopal),
4. Orissa (Bhubaneswar),
5. Rajasthan (Jodhpur) and
6. Uttaranchal (Rishikesh)

Have been setup under the PMSSY scheme

Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (PMJAY)

Ayushman Bharat: India's commitment to Universal Health Coverage
Ayushman Bharat is a fundamental restructuring of the manner in which beneficiaries access healthcare services at the primary, secondary and tertiary care levels. It represents a transition from segmented, sectoral and fragmented program implementation models towards a comprehensive, holistic, need-based healthcare system. Ayushman Bharat encapsulates a progression towards promotive, preventive, curative, palliative and rehabilitative aspects of Universal Healthcare through access of Health and Wellness Centers (HWCs) at the primary level and provisioning of financial protection for accessing curative care at the secondary and tertiary levels through engagement with both public and private sector.

ANNEXURE 3 – MASTER TIMETABLE OF FIRST MBBS

New CBME based Aligned & Integrated Summary Master Time Table - 1st MBBS Batch - 2019-20, Smt NHLMMC, Ahmedabad.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Physiologylecture (with Nesting & Sharing)	Anatomy lecture / ECE	**For 13 Wednesdays:** Community Medicine lectures (90 minutes each - with Nesting) followed by FV and GD in small groups, followed by 30 minutes each of SDL sessions **After 13 Wednesdays,** CM will be replaced by Physiology & Biochemistry TL sessions + AETCOM Module 1 & 2 (By Community Medicine)	Anatomy lecture / ECE	Biochemistry lecture / SDL + AETCOM Module 4 (By Biochemistry)	Anatomy lecture / Hospital visit
10-11	Physiology lecture / ECE + AETCOM Module 3 (By Physiology)	Anatomy lecture (with Nesting & Sharing)		Anatomy demo	Physiology lecture (with Nesting & Sharing)	Anatomy lecture (with Nesting & Sharing)
11-12	Biochemistry lecture / ECE	Anatomy lecture / SDL		Anatomy dissection	Physiology lecture / Hospital visit	Histology practical / SDL & Sports + ECA + AETCOM Module 5 (By Anatomy)
12-1	Physiology lecture / SDL	Anatomy Demo			Biochemistry lecture (with Nesting & Sharing)	
1-2	**Recess**					
2-5	Physiology/Biochemistry Practical / Tutorial /GD & Sports + ECA	Anatomy dissection & Sports + ECA	Physiology/Biochemistry Practical / Tutorial /GD & Sports + ECA		Physiology/Biochemistry Practical / Tutorial /GD & Sports + ECA	

Following new features are incorporated into the time table as per MCI guidelines

1	*** Total teaching hours (Lecture + SGT):** Anatomy – 675 (220 + 415), Physiology – 470 (160 + 310), Biochemistry – 250 (80 + 150), Community Medicine – 52 (20 + 27)
2	*** Early Clinical Exposure (ECE):** Total 90 hours, 30 hours each for Anatomy, Physiology & Biochemistry (18 hours clinical exposure + 12 hours hospital visit in each of these 3 subjects)
3	*** AETCOM Modules:** Total 5 modules will be completed collectively by all the 4 departments in total 48 hours
4	*** Self-directed learning (SDL):** Anatomy – 40 hours, Physiology – 25 hours, Biochemistry – 20 hours, Community Medicine – 5 hours
5	*** Sports & Extra-curricular activities (ECA):** Total 60 hours will be distributed for these activities among all the 4 subjects
6	***Formative assessment (FA) & Term exams:** At least 1 FA in Community Medicine and at least 3 FAs in rest three departments will be taken (total hours – 80)
7	*** Total hours including all the activities:** All the activities will be completed in total 1750 hours

Aligned and Non-Aligned parts of Anatomy, Physiology and Biochemistry in the time table

Anatomy		Physiology		Biochemistry	
Aligned Topic	**Non-Aligned Topic**	**Aligned Topic**	**Non-Aligned Topic**	**Aligned Topic**	**Non-Aligned Topic**
Brachial Plexus with Nerve Physiology	Lower limb	Muscle Physiology aligned with Upper limb anatomy	Blood	Cell & organelles aligned with general physiology	Carbohydrates Chemistry
Upper limb aligned with muscle and neuromuscular junction Physiology	Head and Neck	Cardiac cycle aligned with biochemistry Jaundice aligned with Biochemistry	Deep sea, High Altitude and Space Physiology	Cardiac enzymes aligned with physiology	Amino acid and Protein Chemistry
Thorax aligned with CVS-Part-I and RS (Physiology) along with cardiac enzymology (Biochemistry)	Embryology	Thorax aligned with CVS-part-I and RS (Physiology) along with cardiac enzymology (Biochemistry)	Temperature regulation, G-Proteins	Jaundice aligned with physiology Fatty liver aligned with Liver (Anatomy) Renal Failure aligned with Kidney (Physiology)	Lipid chemistry
Abdomen with GIT, Renal and Reproductive Physiology	Histology	Protein metabolism aligned with endocrine system (Physiology)	Central Nervous System part-I	Thorax aligned with CVS and RS (Physiology) along with cardiac enzymology (Biochemistry)	ECM and Tissue protein Chemistry of HIV Environmental biochemistry
CNS, Head & Neck anatomy aligned with CNS-II, Special sense physiology	Genetics & Osteology	CNS physiology aligned with CNS Anatomy	Cardio-vascular System part-I	Protein metabolism aligned with endocrine system (Physiology)	Immunochemistry Chemistry of cancer

Note-

1) **For the Aligned topics, if common objectives are found sharing will be done (for ex- for the topic of Microscope- sharing from all three departments)**
2) **For both Aligned as well as Non-Aligned topics, Nesting will be done (ex- Physiology will be nested with Medicine and Anatomy with the Surgery)**
3) **2 Aligned and Integrated team (AIT) are already formed. These teams will select topics for higher level of integration. The teams plan to arrange about 5 linker sessions also.**

New CBME based Aligned & Integrated Detailed Master Time Table

Sept.19	Holiday	3.9.19	4.9.19	5.9.19	6.9.19	7.9.19
	Mon	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
9-10		General Anatomy Terminology	Community Medicine Lecture*: Introduction to Community Medicine	Bone	Importance of Biochemistry in Medicine	General Anatomy Muscle
10-11		General Anatomy Terminology	Introduction of faculty and residents; TL and exam Schedules in CM Student Information Form; General physical examination of all students including anthropometry, BP, Hb	General Anatomy Bone	Physiology lecture-structure & function of human cell	General Anatomy Muscle
11-12		General Anatomy Terminology		Dissection Oath Taking	Physiology SDL- 1hr functions of cell organelles	Dissection Terminology
12-1		Demo General Anatomy Terminology		Dissection Introduction to cadaver	Biochemistry : Cell Biology &Cell Organelles	SDL Terminology
1-2	R E C E S S					
2-3		ATCOM MODULE 5	Tutorial	Demo Bone	Tutorial	
3-5			P-Microscope P-History taking B-Introduction of Good safe lab practice, equipments& waste disposal	Dissection Terminology	P-Microscope P-History taking B-Introduction of Good safe lab practice, equipments& waste disposal	

Sept 19	9.9.19	10.9.19	Holiday	12.9.19	13.9.19	14.9.19
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
9-10	Physiology lecture-Functions of cell organelles & Intercellular communication	General CVS	HOLIDAY	General Joint	Biochemistry. Lecture : Chemistry and applied clinical importance of carbohydrate in health & Diseases	Embryology

10-11	Physiology - ECE (Topic- Cell disorders)	General Lymphatic System		General Joint	Physiology SDL-Transport across cell membrane	Histology Lecture Microscope
11-12	Biochemistry of Cell Membrane ,Transport Mechanisms across cell membrane and applied aspect	General CNS		Skin & Fascia	Physiology lecture- body fluid compartments	Histology Practical Microscope
12-1	Physiology Hospital visit/Clinical skill	General CNS		Dissection Exposure to cadaver	Biochemistry Lecture Carbohydrate - Mono & Disaccharides	
1-2	R E C E S S					
2-3	Tutorial	Demo Bone		Demo Bone	Tutorial	
3-5	P-Microscope P-History taking B-Introduction of Good safe lab practice, equipments& waste disposal	Dissection Exposure to cadaver		Dissection Exposure to cadaver Removal of skin	P-Microscope P-History taking B-Introduction of Good safe lab practice, equipments& waste disposal	

Sept 19	**16.9.19**	**17.9.19**	**18.9.19**	**19.9.19**	**20.9.19**	**21.9.19**
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
9-10	Physiology lecture-pH & Buffer system	Lecture Upper limb -Introduction of UL	**Community Medicine** Lecture: Evolution of Medicine and Preventive/Community Medicine	Lecture Upper limb Brachial Plexus ECE	Biochemistry - ECE (Topic- Diabetes)	Embryology Lecture
10-11	Physiology SDL-Alkalosis & acidosis	**Lecture** **Upper limb** **Pectoral region**		**Lecture** **Upper limb** **Axilla –Boundaries & Content**	Physiology lecture-RMP &Action potential	**Histology** **Lecture** **Simple Epithelium**
11-12	Biochemistry SDL – Cell Membrane and applied aspect	Lecture Upper limb Pectoral region	Field visits+ Group discussion in small groups + SDL (****Places of visits and topics of GD+SDL are mentioned at the end of this table)**	Dissection Axilla	Physiology SDL-Chemical messengers & their clinical application	Histology Practical Simple Epithelium
12-1	Physiology Hospital visit	Demo Clavicle			Biochemistry – HV/CLINICAL SKILL	
1-2	R E C E S S					

2-3	Tutorial	Dissection Pectoral region	Tutorial	Demo Scapula	Tutorial	
3-5	P-Microscope P-History taking B-Introduction of Good safe lab practice, equipments& waste disposal	Dissection Pectoral region SDL Pectoral region	P-Effect of saline, Osm fragility P-General examination B-Chemical reactions of carbohydrate Monosaccharides	Dissection Axilla	P-Effect of saline, Osm fragility P-General examination B-Chemical reactions of carbohydrate Monosaccharides	

Sept 19	23.9.19	24.9.19	25.9.19	26.9.19	27.9.19	28.9.19
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Physiology - ECE (Topic- Anemia)	Upper limb Axilla ECE	**Community Medicine** Lecture: Concept of Health	Upper limb Inter Muscular Spaces	Biochemistry - ECE (Topic- Diabetes)	Embryology Lecture
10-11	Physiology lecture- Plasma proteins - ECE	Upper limb Mammary Gland& Lymphatic Drainage ECE	FV +GD+SDL*	Lecture Shoulder Joint	Physiology - ECE (Topic- Bleeding disorders)	Histology Lecture Stratified Epithelium
11-12	Biochemistry - ECE (Topic- Diabetes)	Upper limb Muscles of Back		Lecture Shoulder Joint	Physiology lecture- Regulation of erythropoiesis - ECE	Histology Practical Stratified Epithelium
12-1	Physiology hospital visit/clinical skill	Demo Scapula		Demo Humerus	Biochemistry – HV/CLINICAL SKILL	
1-2	R E C E S S					
2-3	Tutorial	Dissection Muscles of Back	Tutorial	Dissection Shoulder joint	Tutorial	
3-5	P-Effect of saline, Osm fragility P-General examination B-Chemical reactions of Monosaccharides	SDL Mammary Gland	P-Effect of saline, Osm fragility P-General examination B-Chemical reactions of Monosaccharides	Dissection Arm SDL Shoulder Joint	P-Effect of saline, Osm fragility P-General examination B-Chemical reactions of Monosaccharides	

Oct 19	30.9.19	1.10.19	Holiday	3.10.19	4.10.19	**5.10.19**
	Monday	Tuesday	Wed	Thursday	Friday	**Saturday**
9-10	Physiology lecture jaundice	Upper limb Front of the Arm		Upper limb Flexor Compartment of Forearm	Biochemistry - ECE (Topic- Jaundice)	**Embryology Lecture**
10-11	Physiology lecture- Granulopoiesis & its regulation	Upper limb Deltoid Back of the Arm		Upper limb Extensor Compartment of Forearm	Physiology lecture-Platelets Formation, function, variation- ECE	**Histology** **Lecture** **Glandular Epithelium**
11-12	Biochemistry – HV/CLINICAL SKILL	Cubital Fossa		Dissection of Flexor Compartment of Forearm	Physiology – ECE (Topic- Hemostasis)	**Histology** **Practical** **Glandular Epithelium**
12-1	Physiology lecture- Thalasemia	Demo Radius			Biochemistry – HV/CLINICAL SKILL	
1-2	R E C E S S					
2-3	Tutorial	Dissection Shoulder joint		Demo Ulna	Tutorial	
3-5	P-Blood group P-Temperature B-Chemical reactions of carbohydrate – Disaccharides and Polysaccharides	Dissection Shoulder joint SDL Cubital Fossa		Dissection of Extensor Compartment of Forearm	P-Blood group P-Temperature B-Chemical reactions of carbohydrate – Disaccharides and Polysaccharides	

Oct 19	7.10.19	8.10.19	**9.10.19**	10.10.19	11.10.19	12.10.19
	Monday	Tuesday	**Wednesday**	Thursday	Friday	Saturday
9-10	Physiology lecture- Blood groups , blood banking ,transfusion		**Community Medicine** Lecture: Determinants of Health	Upper limb Palmer Spaces	Biochemistry - ECE (Topic- Jaundice)	Embryology
10-11	Physiology ECE- (Topic -Bleeding & clotting disorders)			Upper limb Muscles of Hand	Physiology SDL- immunity	Histology Lecture Connective tissue
			FV+GD+SDL*			

11-12	Biochemistry Lecture- Polysaccharides Muco-Polysaccharides			Dissection of Retinaculum	Physiology – ECE (Topic-allergy &Hypersensivity)	Histology Practical Connective tissue
12-1	Physiology lecture- immunity				Biochemistry – HV/CLINICAL SKILL	
1-2	R E C E S S					
2-3	Tutorial		Tutorial	Demo Articulated Hand	Tutorial	
3-5	P-Blood group P-Temperature B-Chemical reactions of carbohydrate – Disaccharides and Polysaccharides		P-Blood group P-Temperature B-Chemical reactions of carbohydrate – Disaccharides and Polysaccharides	Dissection of Hand	P-Blood group P-Temperature B-Chemical reactions of carbohydrate – Disaccharides and Polysaccharides	

Oct 19	14.10.19	15.10.19	**16.10.19**	17.10.19	18.10.19	19.10.19
	Monday	Tuesday	**Wednesday**	thursday	Friday	Saturday
9-10	Physiology lecture- Hospital visit (Topic- Emergency Medicine)	Upper limb Ulnar Nerve,Radial nerve	**Community medicine** Lecture: Indicators of Health	Blood Supply of Upper limb	Biochemistry - ECE (Topic- Jaundice)	Embryology Lecture
10-11	Physiology lecture- Neuromuscular junction	Upper limb Superficial & Deep Palmer Arches		Upper limb Median nerve	Physiology lecture-(integrated – nesting with pharmacology) NM blocking agents	Histology Lecture Cartilage
11-12	Biochemistry Lecture - Amino acid chemistry, classification & chemical reaction	Upper limb Movement of Thumb,Supunation,Pronation	FV+GD+SDL*	Dissection Muscles of Hand	Physiology - Hospital visit Myasthenia gravis	Histology Practical Cartilage
12-1	Physiology lecture- NM transmission	Demo Radiology of Upper limb			Biochemistry – HV/CLINICAL SKILL	
1-2	R E C E S S					

2-3	Tutorial	Dissection Superficial & Deep Palmer Arches	Tutorial	Demo Surface Marking	Tutorial	
3-5	p-BT, CT P-Artificial Respiration B-Precipitation reactions of proteins	SDL- Superficial & Deep Palmer Arches	p-BT, CT P-Artificial Respiration B-Precipitation reactions of proteins	Dissection Of Elbow Joint	p-BT, CT P-Artificial Respiration B-Precipitation reactions of proteins	

Oct 19	21.10.19	22.10.19	**23.10.19**	24.10.19	25.10.19 Diwali vacation	26.10.19 Diwali vacation
	Monday	Tuesday	**Wednesday**	Thursday	friday	Saturday
9-10	Physiology -hospital visit (Topic- Blood bank)	Early Clinical Exposure Appled Anatomy of Upper limb	**Community medicine** Lecture: Concept of Disease (Concept of Causation – Theories)	PART ENDING TEST		
10-11	AP & properties of muscle fibers		FV+GD+SDL*			
11-12	Biochemistry Lecture - Peptide bond formation & Protein structure – Protein folding diseases					
12-1	Physiology lecture- Molecular basis of muscle contraction	Demo Revision of Bones				
1-2						
2-3	Tutorial	Dissection Revision	Tutorial			
3-5	p-BT, CT P-Artificial Respiration B-Precipitation reactions of proteins		p-BT, CT P-Artificial Respiration B-Precipitation reactions of proteins			

Oct -nov 2019	28.10.19 Diwali vacation	29.10.19 Diwali vacation	30.10.19 Diwali vacation	31.10.19 Diwali vacation	1.11.19 Diwali vacation	2.11.19 Diwali vacation
Nov 19	4.11.19	5.11.19	6.11.19	7.11.19	8.11.19	9.11.19

	Monday	Tuesday	Wednesday	thursday	Friday	Saturday
9-10	Physiology lecture-Mode of muscle contraction	Lower limb Introduction	**Community Medicine** Lecture: Concept of Disease (Epidemiological Triad)	Lower limb Femoral Triangle Adductor Canal	Biochemistry - ECE (Topic- Atherosclerosis)	Embryology
10-11	Physiology lecture-Energy source & muscle metabolism	Veins of Lower limb	FV+GD+SDL*	Lower limb Muscles of front of thigh	Physiology lecture-Structure & function of GIT - ECE	Histology lecture Bone
11-12	Biochemistry Lecture - Physical & chemical properties of protein & protein classification	Femoral Triangle 1		Dissection Femoral Triangle	SDL -saliva & gastric secretion- ECE	Histology Practical Bone
12-1	Hospital visit -Muscular dystrophy & myopathies	Demo Hip bone			Biochemistry – HV/CLINICAL SKILL	
1-2	R E C E S S					
2-3	Tutorial	Dissection Front of thigh	Tutorial	Demo Hip bone	Tutorial	
3-5	p-Hb estimation p-Pulse examination B-Identify unknown carbohydrate solution	SDL –Veins of LL	p-Hb estimation p-Pulse examination B-Identify unknown carbohydrate solution	Dissection Adductor Canal	p-Hb estimation p-Pulse examination B-Identify unknown carbohydrate solution	

Nov 19	11.11.19	Holiday Gurunanakjayanti	**13.11.19**	14.11.19	15.11.19	16.11.19
	Monday	Tuesday	**Wednesday**	thursday	Friday	Saturday
9-10	Physiology lecture- Intestinal juice		**Community Medicine** Lecture: Concept of disease (Concept of risk factors)	Lower limb Medial side of Thigh	Biochemistry - ECE (Topic- Atherosclerosis)	Embryology
10-11	Physiology lecture- Pancreatic juice & bile		FV+GD+SDL*	Lower limb Gluteal Region 1	Physiology ECE- (Topic- GI disorders)	Histology lecture Muscle
11-12	Biochemistry Lecture - Lipid classification & Properties. Importance			Dissection of Medial side of Thigh	Physiology lecture- Defaecation& role of fibers	Histology Practical Muscle

	of Lipid in health & Diseases					
12-1	Physiology lecture- Gastrointestinal movements				Biochemistry – HV/CLINICAL SKILL	
1-2	R E C E S S					
2-3	Tutorial		Tutorial	Demo Femur	Tutorial	
3-5pm	p-Hb estimation p-Pulse examination B-Identify unknown carbohydrate solution		p-Hb estimation p-Pulse examination B-Identify unknown carbohydrate solution	Dissection of Gluteal Region	P-WBC count P-BP B- normal Chemical component of urine; Laboratory report	`

Nov 19	18.11.19	19.11.19	**20.11.19**	21.11.19	22.11.19	23.11.19
	Monday	Tuesday	**Wednesday**	thursday	Friday	Saturday
9-10	Physiology lecture- Physiology of digestion &absorption	Lower Limb Gluteal Region 2	**Community Medicine** Lecture: Concept of Prevention (Iceberg phenomenon; Difference between control, elimination, eradication)	Lower Limb Popliteal Fossa	Biochemistry - ECE (Topic- Atherosclerosis)	Embryology
10-11	Physiology lecture- GI movements	Lower Limb Back of thigh		Lower Limb Hip Joint	Physiology SDL Gut brain axis	Histology lecture Lymphatic System
11-12	Biochemistry Lecture - Compound lipids & its clinical aspect	Lower Limb Sciatic nerve	FV+GD+SDL*	Dissection Popliteal Fossa	Physiology ECE-(Topic-Liver disease)	
12-1	Physiology Hospital visit (Topic- Neonatal ward)	Demo Femur			Biochemistry – HV/CLINICAL SKILL	
1-2	R E C E S S					
2-3	Tutorial	Dissection Back of thigh		Demo Patella		
3-5	P-WBC count P-BP B-Laboratory Urine report : normal Chemical component of urine	SDL-Sciatic Nerve	P-WBC count P-BP B-Laboratory Urine report normal Chemical component of urine	Dissection Hip joint	P-WBC count P-BP B- Laboratory Urine report: normal Chemical component of urine	

Nov 19	25.11.19	26.11.19	**27.11.19**	28.11.19	29.11.19	30.11.19
	Monday	Tuesday	**Wednesday**	thursday	Friday	Saturday
9-10	Physiology - ECE (Topic- NCV/EMG)	Lower limb Popliteal Artery And Anastomosis Around Knee Joint	**Community medicine** Lecture: Concept of prevention – levels and actions - Primary prevention	Lower limb Front of Leg Ant.Tibial Artery	Biochemistry Lecture – Enzyme inhibition & regulation; clinical application enzyme inhibition	Embryology
10-11	Physiology – Hospital visit (NCV/EMG room)	Lower limb Back of the Leg	FV+GD+SDL*	Lower limb Lateral side of Leg,Deep peroneal nerve	Physiology lecture- Properties of cardiac muscle	Histology Lecture Skin And Appendages
11-12	Biochemistry Lecture - Enzyme - classification, coenzyme & kinetics	Lower limb Back of the Leg		Dissection Front of Leg	Physiology lecture- properties of cardiac muscle	Histology Practical Skin and Appendages
12-1	Functional anatomy of heart	Demo Tibia			Biochemistry Lecture - Clinical enzymology	
1-2	R E C E S S					
2-3	Tutorial	Dissection Back of the Leg	Tutorial	Demo Fibula	Tutorial	
3-5	P-WBC count P-BP B-Chemical component of normal urine	SDL Genicular Anastomosis	P-RBC count P-Spirometry B-Chemical component of abnormal urine : lab report	Dissection Lateral Side Of Leg	P-RBC count P-Spirometry B-Chemical component of abnormal urine : lab report	

Dec 19	2.12.19	3.12.19	**4.12.19**	5.12.19	6.12.19	7.12.19
	Monday	Tuesday	**Wednesday**	thursday	Friday	Saturday
9-10	Physiology lecture- Cardiac cycle	Lower limb Retinacula around ankle joint	**Community Medicine** Lecture: Concept of prevention – Levels and actions – Secondary prevention	Lower limb Sole of the Foot	Biochemistry - ECE (Topic- Gout)	Embryology
10-11	Physiology ECE- (Topic-Impulse generation &	Lower limb Knee Joint		Lower limb Sole of the Foot	Hospital visit-ECG - ECE	Histology Lecture Blood Vessels

	conduction of cardiac impulse)		FV+GD+SDL*			
11-12	Biochemistry SDL – Clinical aspect of Enzymology	Lower limb Knee Joint		Dissection Of Sole of the foot	Physiology lecture- Arrhythmias & heart block- ECE	Histology Practical Blood Vessels
12-1	Physiology lecture- ECG	Demo Articulated Foot			Biochemistry – HV/CLINICAL SKILL	
1-2	R E C E S S					
2-3	Tutorial	Dissection Of Knee Joint	Tutorial	Demo Radiology of LL	Tutorial	
3-5	p-RBC count P-Spirometry B-Chemical component of abnormal urine: lab report	SDL Knee Joint	p-RBC count P-Spirometry B-Chemical component of abnormal urine: lab report	Dissection Of Sole of the foot	p-RBC count P-Spirometry B-Chemical component of abnormal urine: lab report	

Dec19	9.12.19	10.11.19	**11.12.19**	12.12.19	13.12.19	14.12.19
	Monday	Tuesday	**Wednesday**	thursday	Friday	Saturday
9-10	Physiology – SDL hemodynamics	Lower limb Arches Of the Foot	**Community Medicine** Lecture: Concept of prevention – Levels and actions – Tertiary prevention	Introduction of Thorax	Biochemistry - ECE (Topic- Gout)	Embryology
10-11	Physiology lecture- Cardiac output regulation	Lower limb Inversion Eversion	FV+GD+SDL*	Intercostal spaces	Physiology lecture- Regional circulation	Histology Lecture Respiratory system
11-12	Biochemistry Lecture – Biochemical aspect of normal & abnormal Plasma proteins	Applied Anatomy of Lower limb Early Clinical Exposure		Respiratory movements	Physiology- ECE- (Topic- Ischemic heart disease)	Histology Practical Respiratory system
12-1	Physiology lecture- Regulation of Heart rate & BP	Demonstration Surface marking of LL		Demo Thoracic cage	Biochemistry Lecture - Digestion & absorption of carbohydrates : Integration with Physiology	
1-2	R E C E S S					
2-3	Tutorial	Early Clinical Exposure of Upper& Lower limb	Tutorial	Dissection Intercostal space	Tutorial	
3-5	P-DC-I P-Resp.Effi,PEFR		P-DC-I P-Resp.Effi,PEFR		P-DC-I P-Resp.Effi,PEFR	

	B-Analysis of constituents of CSF		B-Analysis of constituents of CSF	SDL Intercostal space	B-Analysis of constituents of CSF	

Dec 19	16.12.19	17.12.19	**18.12.19**	19.12.19	20.12.19	21.12.19
	Monday	Tuesday	**Wednesday**	Thursday	Friday	Saturday
9-10	Physiology Hospital visit (Topic- Cath-lab)- ECE	Mediastinum	**Community medicine First term ending exam; feedback to the students; feedback from the students**	Thorax Azygous venous system	Biochemistry - ECE (Topic- ABGA)	Heart-1
10-11	Physiology lecture- Patho- physiology of shock- ECE	Pleura & pleural recesses		Thorax Pericardium	Biochemistry – HV/CLINICAL SKILL	Coronary artery & its boundaries
11-12	Biochemistry Lecture - Extra cellular matrix & tissue proteins in health & Diseases	Lungs & Bronchopulmonary Segments		Dissection Lung	Physiology Hospital visit (Topic- PFT)	Dissection Tracheobroncheal tree
12-1	Physiology - ECE- Shock & Heart failure	Demo Sternum			Physiology lecture- Mechanics of respiration	
1-2	R E C E S S					
2-3	Tutorial	Dissection Mediastinum	Tutorial	Demo Typical rib	Tutorial	
3-5	P-DC-I P-Resp.Effi,PEFR B-Analysis of constituents of CSF	SDL Pleura & pleural recesses	P-DC-I P-Resp.Effi,PEFR B-Analysis of constituents of CSF	Dissection Lung	ECE-Pulmonary disease	

Dec 2019	23.12.19	24.12.19	Holiday christmas	26.12.19 Prep leave for 1st internal	27.12.19 Prep leave for 1st internal	28.12.19 Prep leave for 1st internal
	Monday	Tuesday	Wed			
9-10	Physiology lecture- Mechanics of respiration	Thorax Heart-2				
10-11	Physiology lecture- Diffusion & VP ratio	Thorax Heart-3				
11-12	Biochemistry Lecture - Immunology - cellular & humoral components of	Thorax Arch of Aorta;				

	immune system	Thoracic duct				
12-1	Physiology lecture- Transport of O2	Demo Atypical rib				
1-2	R E C E S S					
2-3	Tutorial	Dissection Of Heart	1.1.20 1st internal	2.1.20 1st internal	3.1.20 1st internal	4.1.20 1st internal
3-5	ECE-Cardiac disease	SDL of coronary artries				

Jan 20	6.1.20 1st internal	7.1.20 1st internal	8.1.20 1st internal	9.1.20 1st internal	10.1.20 1st internal	11.1.20 1st internal
	Monday	Tuesday	Wed	Thu	Fri	Sat

Jan 20	13.1.20 1st internal	Holiday uttarayan	15.1.20	16.1.20	17.1.20	18.1.20
	Monday	Tuesday	Wed	Thursday	Friday	Saturday
9-10			Biochemistry Lecture - Immunoglobulin structure & functions. Laboratory technique for estimation of Ig. Concept of function immunochemistry analyser	Thorax Thoracic diaphragm	Biochemistry - ECE (Topic- Renal Failure)	Embryology
10-11			Physiology Hospital visit – PFT	Thorax Oesophagus , SVC	Physiology lecture -Transport of CO2	Histology lecture revision
11-12				Dissection Of Heart	Physiology lecture -Physiology of deep sea	Histology Practical revision
12-1			Physiology SDL Dyspnoea, asphyxia, periodic breathing		Biochemistry - ECE (Topic- Renal Failure)	
1-2	R E C E S S					

2-3			Tutorial	Demo Thoracic vertebrae	Tutorial	
3-5			P-DC-II P-Cli.Ex of RS B-Introduction to colorimetry & related techniques	Dissection Of Heart	P-DC-II P-Cli.Ex of RS B-Introduction to colorimetry & related techniques	

Jan 20	20.1.20	21.1.20	22.1.20	23.1.20	24.1.20	25.1.20
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology SDL High altitude physiology, Acclimatization & Decompression sickness	Early clinical exposure Applied anatomy of thorax	Biochemistry - ECE (Topic- Renal Failure)	Abdomen Introduction of Abdomen	Biochemistry HV –Visit to vaccination centre in hospital	Embryology
10-11			SDL Effect of exercise on cardiorespiratory system	Abdomen Anterior abdominal wall	Biochemistry- SDL Clinical aspect of Immunoglobulin	Histology lecture Oral Cavity
11-12	Biochemistry Lecture - Antigen and biochemical aspect & concept of vaccination	Demo Surface marking		Dissection Anterior abdominal wall	Structure & function of kidney	Histology practical Oral Cavity
12-1	Physiology lecture -Hypoxia	Demo Radiology of thorax			Juxtaglomerular apparatus	
1-2	R E C E S S					
2-3	Tutorial	Early clinical exposure Hospital visit	Tutorial	Demo lumbar vertebrae	Tutorial	
3-5	P-DC-II P-Cli.Ex of RS B-Introduction to colorimetry & related techniques		P-DC-II P-Cli.Ex of RS B-Introduction to colorimetry & related techniques	Dissection Anterior abdominal wall	P-DC-II P-Cli.Ex of RS B-Introduction to colorimetry & related techniques	

Jan 20	27.1.20	28.1.20	29.1.20	30.1.20	31.1.20	1.2.20

	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology lecture - Glomerular filtration	Abdomen Rectus sheath	Biochemistry Lecture - digestion & absorption of proteins	Peritoneum- introduction	Biochemistry Lecture - Urea cycle. Live observation of estimation and laboratory report	Embryology
10-11	Physiology lecture- Tubular reabsorption	Inguinal canal	Physiology dept ATCOM	Lesser sac & greater sac	Physiology lecture- Micturition	Histology Lecture Digestive 1
11-12	Biochemistry Lecture - digestion& absorption of Lipids. Integration with physiology	umbilicus		Dissection Inguinal canal & rectus sheath	Physiology Hospital visit Dialysis & transplantation	Histology practical Digestive 1
12-1	Physiology lecture -Urine diluting & concentration mechanism	Demo Sacrum	Physiology ECE Acid base balance		Biochemistry Lecture - Glycolysis	
1-2	R E C E S S					
2-3	Tutorial	Dissection Inguinal canal & rectus sheath	Tutorial	Demo- Spleen	Tutorial	
3-5	P-ESR,PCV,Bl.indices P-Cli.Ex of CVS B-Quantitative Estimation of Glucose	SDL – Inguinal Cananl	P-ESR,PCV,Bl.indices P-Cli.Ex of CVS B-Quantitative Estimation of Glucose	Dissection Peritoneum	P-ESR,PCV,Bl.indices P-Cli.Ex of CVS B-Quantitative Estimation of Glucose	

Feb 20	3.2.20	4.2.20	5.2.20	6.2.20	7.2.20	8.2.20
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology lect- Renal clearance & Fluid balance regulation	Tracing of peritoneum	Biochemistry - ECE (Topic- Inborn Error of Metabolism Amino Acid)	Pancreas	Biochemistry Lecture - TCA cycle	Embryology
10-11	Physiology Lecture -Renal function test	Peritoneal recesses	Physiology lecture -Mechanism of hormone action	Intestine & Duodenum	Biochemistry Lecture - Fatty acid synthesis, applied aspect	Histology lecture Digestive 2
11-12	Biochemistry Lecture - Beta oxidation	Stomach	Physiology SDL(Topic-Hypothalamus & pituitary gland)	Blood vessels of gut	Physiology Hospital visit (Topic-Growth hormone)	Histology practical Digestive 2
12-1	Physiology lecture-	Demo	Physiology lecture -Growth hormone	Demo	Physiology	

	Introduction - endocrine system	Bony pelvis-I		Bony pelvis-II	Lecture -Posterior pituitary	
1-2	R E C E S S					
2-3	Tutorial	Dissection Peritoneum	Tutorial	Dissection Blood vessels of gut	Tutorial	
3-5	P-ESR,PCV,Bl.indices P-Cli.Ex of CVS B-Quantitative Estimation of Glucose	SDL Peritoneum	P-ESR,PCV,Bl.indices P-Cli.Ex of CVS B-Quantitative Estimation of Glucose	SDL-Blood Vessels	P-Reticulocyte count P-cardiac.efficiency B-Quantitative Estimation of cholesterol	

Feb 20	10.2.20	11.2.20	12.2.2020	13.2.2020	14.2.2020	15.2.2020
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology Lecture -Thyroid gland	Portal vein & Portocaval anastomosis	Biochemistry - ECE (Topic- Inborn Error of Metabolism Amino Acid)	Posterior abdominal wall & IVC &chysternachyle	Biochemistry Lecture - Glycogen metabolism, applied aspect	Embryology
10-11	Physiology Hospital visit(Topic-Thyroid hormone)	Gall Bladder & Biliary apparatus	Physiology lecture -Pancreas & its hormones	Rectum	Physiology lecture -Parathyroid gland regulation of blood Ca level	Histology lecture Urinary Syatem
11-12	Biochemistry Lecture – Gluconeogenesis	Ureter	Physiology lecture -Insulin & glucagon	Anal canal	Physiology lecture -Adrenal gland	Histology practical Urinary Syatem
12-1	Physiology , SDL (Topic-Disorders of thyroid)	Demo Liver	Physiology , SDL- (Topic-Disorders of pancreas)	Demo kidney	Biochemistry Lecture - Adipose tissue metabolism & fatty liver	
1-2	R E C E S S					
2-3	Tutorial	Dissection Stomach, liver, Spleen SDL Portocaval Anastomosis	Tutorial	Dissection Small & Large intestine SDL Anal canal	Tutorial	
3-5	P-Reticulocyte count P-cardiac.efficiency B-Quantitative Estimation of cholesterol		P-Reticulocyte count P-cardiac.efficiency B-Quantitative Estimation of cholesterol		P-Reticulocyte count P-cardiac.efficiency B-Quantitative Estimation of Cholesterol	

Feb 20	17.2.20	18.2.2020	19.2.2020	20.2.2020	Holiday shivratri	22.2.2020
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology lecture - Mineralocorticoids	Urinary Bladder	Biochemistry - ECE (Topic- Inborn Error of Metabolism Amino Acid)	Support of Uterus		Embryology
10-11	Physiology lecture - Glucocorticoids	Male urethra	Physiology SDL Reproductive Physiology	Fallopian tube		Histology lecture Male Reproductive System
11-12	Biochemistry Lecture -HMP shunt pathway	Uterus- Gross	Physiology SDL Thymus & Pineal gland	Dissection Uterus		Histology practical Male Reproductive System
12-1	Physiology lecture -Adrenal medulla	Demo Urinary Bladder	Obesity, metabolic syndrome, stress response			
1-2	R E C E S S					
2-3	SDL – Physio &Biochem	Dissection Urinary Bladder SDL Urinary Bladder	SDL – Physio &Biochem	Demo Uterus		
3-5	P-Reticulocyte count P-cardiac.efficiency B-Quantitative Estimation of cholesterol		P-Platelets. P-Sensory system B-Estimation Triglycerides	Dissection Perineum		

Feb.20	24.2.2020	25.2.2020	26.2.2020	27.2.2020	28.2.2020	29.2.2020
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology lecture(Integration with OBG)- Sex determination & differentiation	Prostate	Biochemistry Lecture – Minor metabolic pathways of carbohydrate & disorders related to it	Caecum & Appendix	Biochemistry Lecture - Alcohol metabolism & IEM of carbohydrate	Embryology

10-11	Physiology lecture - (integration with paedia) Puberty	Perineun-I	Physiology lecture -Female reproductive system & hormones	Ischio-rectal fossa	Physiology lecture- Adrenal Function tests , Integrated teaching with biochemistry	Histology lecture Female Reproductive System
11-12	Biochemistry Lecture - Ketone body metabolism	Perineum-II Demo Surface marking	Physiology Lecture(Integration with OBG Menstrual cycle	Dissection Caecm& Appendix	Physiology Lecture-Local hormones	Histology practical Female Reproductive System
12-1	Physiology Lecture- Male reproductive system & its hormone		Physiology Lecture- Ovulation & pregnancy		Biochemistry –SDL Clinical aspect of carbohydrate metabolism	
1-2	R E C E S S					
2-3	Tutorial	Dissection Perineum SDL Perineum	Tutorial	Demo Radiology of abdomen	Tutorial	
3-5	P-Platelets. P-Sensory system B-Estimation Triglycerides		P-Platelets. P-Sensory system B-Estimation Triglycerides	Dissection Sagital Section Of Pelvis	P-Platelets. P-Sensory system B-Estimation Triglycerides	

March20	2.3.2020	3.3.2020	4.3.2020	5.3.2020	6.3.2020	7.3.2020
Time	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology lecture integrated with OBG- Infertility & IVF	Internal iliac Artery	Biochemistry AETCOM Module – 1.4 (Hour :- 1)	Extracurricular	Biochemistry AETCOM Module – 1.4 (Hour :- 1)	Embryology
10-11	Physiology lect- Organisation of nervous system	Pelvic Diaphragm	Physiology lect- Synapse,classification& properties		Biochemistry AETCOM Module – 1.4 (Hour :- 1)	Histology Lecture Endocrine system
11-12	Biochemistry AETCOM Module – 1.4 (Hour :- 1)	Dissection Internal iliac Artery	Physiology lect- Reflex,classification , properties & functions	sports	Physiology lect- Sensory tracts	Histology Practical Endocrine system
12-1	Physiology lect- Receptors ,classification& properties		Physiology lect- Sensory tracts		Physiology lect- Motor tracts-pyramidal tracts	

1-2	R E C E S S					
2-3	Tutorial	Early Clinical Exposure Abdomen	Tutorial	Dissection	Tutorial	
3-5	P-Platelets. P-Sensory system B-Estimation Triglycerides		P-CN-1,3,4,6 P-MOTOR system B-Estimation of HDL & interpretation of Lipid profile reports		P-CN-1,3,4,6 P-MOTOR system B-Estimation of HDL & interpretation of Lipid profile reports	

March20	9.3.2020	Holiday Dhuleti	11.3.2020	12.3.2020	13.3.2020	14.3.2020
time	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology lect- Extrapyramidal tracts		Biochemistry - SDL AETCOM Module – 1.4 (Hour :- 1)	Lacrimal Apparatus	Biochemistry AETCOM Module – 1.4 (Hour :- 1)	Embryology
10-11	Physiology lect- Tone, posture ,equilibrium		Physiology lect- Autonomic nervous system	Dura Matter & Dural Venous Sinuses	Biochemistry AETCOM Module – 1.4 (Hour :- 1)	**Brain** Introduction of brain
11-12	Biochemistry - SDL AETCOM Module – 1.4 (Hour :- 1)		Physiology lecture- Reticular activating system	Cavernous sinus Pitutary Gland	Physiology lect-integrated with OBG Contraception	Dissection Introduction of brain
12-1	Physiology lecture- Control of body movements		Physiology lect- Spinal cord ,structure& function	Demo Norma Occipitalis	Physiology , SDL (Topic-Effects of removal of gonads, Menopause)	
1-2	R E C E S S					
2-3	Tutorial		Tutorial	Dissection Face		
3-5	P-CN-1,3,4,6 P-MOTOR system B-Estimation of HDL & interpretation of Lipid profile reports		P-CN-1,3,4,6 P-MOTOR system B-Estimation of HDL & interpretation of Lipid profile reports		P-CN-1,3,4,6 P-MOTOR system B-Estimation of HDL & interpretation of Lipid profile reports	

March20	16.3.2020	17.3.2020	18.3.2020	19.3.2020	20.3.2020	21.3.2020
Time	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology lect- neurotransmitters	**Head & Neck** Scalp	Biochemistry Lecture - Cholesterol metabolism	Spinal cord-I	Biochemistry –SDL Biochemical aspect of DM	Embryology
10-11	Physiology lect- Memory learning speech	Face	Physiology lect- Thalamus	Spinal cord-II	Physiology lecture- (Topic-Spinal cord- lesion, sensory disturbances)	Histology lecture Nervous system
11-12	Biochemistry Lecture – Mechanism Action of Insulin	Face	Physiology lect- Hypothalmus	Medulla		Histology practical Nervous system
12-1	Physiology SDL -Physiology of pain	Demo Norma Verticalis	Physiology lect- Limbic system	Demo Interior of skull-I	Biochemistry Lecture - Lipoprotein metabolism-1	
1-2					R E C E S S	
2-3	Tutorial	Dissection Scalp	Tutorial	Dissection Spinal cord & medulla	Tutorial	
3-5	P-Cr.N.-5,7,9, 10, 11,12 P-MOTOR system B-Estimation of Urea	SDL Face	P-Cr.N.-5,7,9, 10, 11,12 P-MOTOR system B-Estimation of Urea		P-Cr.N.-5,7,9, 10, 11,12 P-MOTOR system B-Estimation of Urea	

March20	23.3.2020	24.3.2020	25.3.2020	Holiday Chetichand	27.3.2020 Prep leave for 2nd internal	28.3.2020 Prep leave for 2nd internal
time	Monday	Tuesday	Wed	Thu	Fri	Sat

9-10	Physiology lecture- Physiology of sleep	Pons	Biochemistry Lecture – Prostaglandins			
10-11	Physiology lecture- EEG	Mid brain	SDL Higher functions			
11-12	Biochemistry Lecture – Lipoprotein metabolism-2	Cerebellum	SDL Cerebral circulation			
12-1	Physiology lecture- Physiology of speech	Demo Interior of skull-II	Physiology, SDL Neuro Physiology			
1-2	R E C E S S					
2-3	Tutorial	Dissection Pons & mid brain	Tutorial			
3-5	P-Cr.N.-5,7,9, 10, 11,12 P-MOTOR system B-Estimation of Urea		P-Cr.N.-5,7,9, 10, 11,12 P-MOTOR system B-Estimation of Urea			

March2020	30.3.2020 Prep leave for 2nd internal	31.3.2020 Prep leave for 2nd internal	2nd internal 1.4.2020	Holiday Raamnavmi 2.4.2020	2nd internal 3.4.2020	2nd internal 4.4.2020
	Monday	Tuesday	Wed	Thu	Fri	Sat

April2020	Holiday Mahavir jayanti	2nd internal 7.4.2020	2nd internal 8.4.2020	2nd internal 9.4.2020	Holiday Good Friday	2nd internal 11.4.2020
	Monday	Tuesday	Wed	Thu	Fri	Sat

April20	2nd internal 13.4.2020	Holiday Ambedkar jayanti	2nd internal 15.4.2020	Day 16.4.2020	Day 17.4.2020	Day 18.4.2020
	Monday	Tue	Wed	Thu	Fri	Sat
9-10				Fourth ventricle	Biochemistry Lecture - IEM of lipid metabolism	Embryology

10-11				Thalamus	Physiology lecture- Basal ganglia-functions	Cerebrum & functional areas
11-12				Basal Ganglia	Physiology lecture- Lesions of basal ganglia-pathophysiology	Dissection Cerebrum
12-1				Demo Fourth ventricle	Biochemistry Lecture - Aromatic amino acid metabolism	
1-2	R E C E S S					
2-3				Dissection Diencephalon	Tutorial	
3-5pm					P-Cr.N-8 P-Reflexes B-Estimation of Creatinine &CCr	

April 20	20.4.2020	21.4.2020	22.4.2020	23.4.2020	24.4.2020	Holiday Parshuram jayanti
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology lecture- Cerebral cortex-funtion	Third ventricle	Biochemistry Lecture – Aromatic amino acid metabolism Disorders related to it	Head and neck Posterior Triangle of Neck 1	Biochemistry Lecture - Electron transport chain	
10-11	Physiology lecture- Cerebral cortex function	Lateral ventricle	Structre of eyeball, aqueous humor &accomodation	Head and neck Posterior Triangle of Neck 2	Cerebellum	

11-12	Biochemistry Lecture Glycine metabolism	Blood supply of brain	Vision physiology	Deep Cervical Fascia	Disorders of cerebellum	
12-1	Physiology lecture- Lesions of cerebral cortex	Demo Third ventricle	Refractive errors	Demo Norma Lateralis	Biochemistry Lecture - Heme synthesis & porphyria	
1-2	R E C E S S					
2-3	Tutorial		Tutorial	Dissection Posterior Triangle of Neck	Tutorial	
3-5	P-Cr.N-8 P-Reflexes B-Estimation of Creatinine &CCr	Dissection Sections of brain	P-Cr.N-8 P-Reflexes B-Estimation of Creatinine &CCr		P-Cr.N-8 P-Reflexes B-Estimation of Creatinine &CCr	

April20	27.4.2020	28.4.2020	29.4.2020	30.4.2020	1.5.20	2.5.20
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology of pupil & light reflex	Applied Anatomy Of Head & Neck	Biochemistry Lecture - Hemoglobin structure & disorders	Head and neck Posterior Triangle of Neck 1	Biochemistry Lecture - Sulfur containing amino acid metabolism	Embryology
10-11	Perception of smell & taste		Ear & Auditory system	Head and neck Posterior Triangle of Neck 2	Colour vision	Head & Neck TM Joint
11-12	Biochemistry - SDL - Heme catabolism	Demo Sagital Section of Head & Neck	Cochlea	Deep Cervical Fascia Demo Norma Lateralis	Visual pathway	Dissection TM Joint
12-1	Pathophysiology of altered smell & taste		Electrophysiology of hearing		Biochemistry Lecture – Nitric oxide &Neurotransmitter	
1-2	R E C E S S					

2-3	Tutorial	Early Clinical Exposure Head & Neck		Dissection Posterior Triangle of Neck	Tutorial	
3-5	P-Cr.N-8 P-Reflexes B-Estimation of Creatinine &CCr		P-Cr.N-2(color vision, acuity of vision P-Perimety B-Estimation of Uric acid		P-Cr.N-2(color vision, acuity of vision P-Perimetry B-Estimation of Uric acid	

May20	4.5.20	5.5.20	6.5.20	7.5.20	8.5.2020	9.5.2020
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Electrophysiology of hearing	Head and neck Anterior Triangle of Neck 1	Biochemistry – SDL Integration of Metabolism	Head and neck Infratemporal Fossa	Biochemistry Lecture - Nucleotide chemistry	Embryology
10-11	Auditory pathway	Head and neck Anterior Triangle of Neck 2	Temperature regulation	Head and neck Infratemporal Fossa	Biochemistry-SDL Clinical aspect of A.A Metabolism	Histology lecture Nervous system
11-12	Biochemistry Lecture - Other amino acids & one carbon metabolism	Head and neck Carotid Sheath & It's Content	Functions of skin	Dissection Infratemporal Fossa	Biochemistry-SDL Clinical aspect of A.A Metabolism	Histology practical Nervous system
12-1	Deafness	Demo Norma Frontalis	Effect of exercise-on cardiorespiratory parameters & metabolism		**Physiology SDL Topic-deafness**	
1-2	R E C E S S					
2-3	Tutorial	Dissection Anterior Triangle of Neck SDL Anterior Triangle of Neck	Tutorial	Demo Norma Basalis Dissection Infratemporal Fossa	Tutorial	
3-5	P-Cr.N-2(color vision, acuity of vision P-Perimety B-Estimation of Uric acid		P-Cr.N-2(color vision, acuity of vision P-Perimety B-Estimation of Uric acid		P-Cr.N-2(color vision, acuity of vision P-Perimety B-Estimation of Uric acid	

May20	11.5.2020	12.5.2020	13.5.2020	14.5.2020	15.5.2020 Summer vacation	16.5.2020 Summer vacation
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	SDL-glaucoma	Submandibular Region Thyroid Gland	Biochemistry –SDL Glucose Tolerance Test	Head and neck Back of Neck Sub occipital Triangle		
10-11	Biochemistry Lecture - DNA & RNA structure		**SDL-Neurophysiology**	Head and neck Pterygopalatine fossa& ganglion		
11-12	Biochemistry – SDL Methods for estimation of Blood Glucose	Lymphatic drainage of Head & Neck		Dissection Suboccipital Triangle		
12-1	Biochemistry Lecture - Purine synthesis & salvage pathway	Demo Norma Basalis	SDL-errors of refraction			
1-2	R E C E S S					
2-3	Biochemistry - Extracurricular	Dissection Submandibular Region	Biochemistry - Extracurricular	Demo Mandible		
3-5	P-Instruments -I B-Estimation of Total protein & Albumin and A:G Ratio	SDL Thyroid Gland	P-Instruments -I B-Estimation of Total protein & Albumin and A:G Ratio	Dissection Suboccipital Triangle		

May20	18.5.2020 Summer vacation	19.52020 Summer vacation	20.5.2020 Summer vacation	21.5.2020 Summer vacation	22.5.2020 Summer vacation	23.5.2020 Summer vacation
	Monday	Tuesday	Wed	Thu	Fri	Sat

May2020	25.5.2020 Summer vacation	26.5.2020 Summer vacation	27.5.2020 Summer vacation	28.5.2020 Summer vacation	29.5.2020 Summer vacation	30.5.2020 Summer vacation
	Monday	Tuesday	Wed	Thu	Fri	Sat

June20	1.6.20	2.6.20	3.6.20	4.6.20	5.6.20	6.6.20
Time	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Extracurricular	Orbit ,Extra ocular Muscles	Biochemistry Lecture - DNA replication	Pharynx	Biochemistry Lecture - Transcription	Larynx 1
10-11		Eye Ball	Extracurricular	Tongue	Extracurricular	Larynx 2
11-12	Biochemistry Lecture - Purine catabolism, gout & pyrimidine metabolism	3rd,4th,6thcranial nerve		Soft Palate & Tonsil		Dissection Larynx
12-1	P Extracurricular physiology SDL	Demo Cervical vertebra		Demo Radiology	Biochemistry –SDL LFT	
1-2	R E C E S S					
2-3	Biochemistry - Extracurricular	Dissection Orbit	Biochemistry - Extracurricular	Dissection Pharynx	Biochemistry - Extracurricular	
3-5	P-Instruments -I B-Estimation of Total protein & Albumin and A:G Ratio	SDL-3rd,4th,6th cranial nerve	P-Instruments -I B-Estimation of Total protein & Albumin and A:G Ratio		P-Instruments -I B-Estimation of Total protein & Albumin and A:G Ratio	

June20	Day 8.6.20	Day 9.6.20	Day 10.6.20	Day 11.6.20	Day 12.6.20	Day 13.6.20
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Physiology ATCOM	Middle Ear	Biochemistry Lecture - Translation	Nose	Physiology Sports	Embryology
10-11		Tympanic Membrane And Auditory Tube	Physiology	Paranasal Air Sinuses		Histology Lecture Eye & Ear
11-12		Facial Nerve	Extracurricular	Trigeminal Ganglion & Middle meningeal Artery		Histology Practical Eye & Ear

12-1		Demo Surface marking of Head & Neck		Demo Lateral Wall of Nose		
1-2	R E C E S S					
2-3	P-(all250 students)Instrument –II & SMC & effect of temperature	Dissection Ear	P- (all 250 students)2 successive stimuli & Genesis of tetanus	Dissection Nose	P- (all 250 students)Quantal summation & velocity of nerve impulse	
3-5						

June2020	Day 15.6.20	Day 16.6.20	Day 17.6.20	Day 18.6.20	Day 19.6.20	Day 20.6.20
	Monday	Tuesday	Wed	Thu	Fri	Sat
9-10	Biochemistry Lecture - Gene regulation	Biochemistry – Extracurricular	Biochemistry Lecture - Gene library, RFLP & Blotting techniques	Biochemistry – Sports	Biochemistry Lecture - Cancer	
10-11	Biochemistry Lecture - PCR		Biochemistry – SDL Clinical aspect of nucleic acid		Biochemistry –SDL Clinical aspect of Cancer	
11-12	Biochemistry Lecture - Gene therapy		Biochemistry Lecture – Mutation		Biochemistry Lecture - Recombinant DNA technology	
12-1	Biochemistry Lecture – Hybridoma technology		Biochemistry – SDL Clinical aspect of Mutation		Biochemistry Lecture - Acid base balance 1	
1-2	R E C E S S					
2-3	P-(all250 students)Strength duration curve & effect of load	Dissection Ear	P- (all 250 students)Fatigue&ergography	Dissection Nose	P- (all 250 students) Normal cardiogram & effect of temperature on frogs heart	
3-5						

June2020	Day 22.6.20	Holiday 23.6.20	Day 24.6.20	Day 25.6.20	Day 26.6.20	Day 27.6.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

9-10	Biochemistry Lecture - Acid base balance 2		Biochemistry Lecture – Xenobiotics		Biochemistry SDL- Nephrotic Syndrome	
10-11	Biochemistry Lecture - Free radicals		Biochemistry SDL- Cardiac function tests & MI		Biochemistry tutorial – Environmental Pollutants	
11-12	Biochemistry Lecture – Anti oxidants		Biochemistry Lecture - Mechanism of action of hormones		Biochemistry SDL- Pancreatic Function Test and Pancreatitis	
12-1	Biochemistry SDL- Adrenal gland function tests		Biochemistry SDL- Renal Function Test		Biochemistry SDL- Antenatal Screening	
1-2	R E C E S S					
2-3	P-(all250 students)Effect of drugs on frogs heart-I	Dissection Ear	P-(all250 students)Effect of drugs on frogs heart-II	Dissection Nose & preuniversityexam starts	P- (all 250 students)Mammalian BP & respiration recording	
3-5						

June2020	29.6.20	30.6.20	1.7.20	2.7.20	3.7.20	4.7.20
	Monday	Tuesday	Wed	Thu	Fri	Sat
	Note- this whole week will be for sports and Extra-curricular activities					

July 2020	Day 6.7.20	Day 7.7.20	Day 8.7.20	Day 9.7.20	Day 10.7.20	Day 11.7.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

JULY 2020	Day 13.7.20	Day 14.7.20	Day 15.7.20	Day 16.7.20	Day 17.7.20	Day 18.7.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

JULY 2020	Day 20.7.20 prelim end	Day 21.7.20 Preparation leave for university exam	Day 22.7.20	Day 23.7.20	Day 24.7.20	Day 25.7.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

JULY 2020	Day 27.7.20	Day 28.7.20	Day 29.7.20	Day 30.7.20	Holiday 31.7.20	1.8.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

AUG2020	Day 3.8.20	Day 4.8.20	Day 5.8.20	Day 6.8.20	Day 7.8.20	Day 8.8.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

AUG2020	Day 10.8.20	Day 11.8.20	Day 12.8.20	Day 13.8.20	Day 14.8.20	Day 15.8.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

AUG2020	Day 17.8.20	Day 18.8.20	Day 19.8.20	Day 20.8.20	Day 21.8.20	Day 22.8.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

AUG2020	Day 24.8.20	Day 25.8.20	Day 26.8.20	Day 27.8.20	Day 28.8.20	Day 29.8.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

AUG2020	Day 31.8.20	Day 1.9.20 university exam starts	Day 2.9.20	Day 3.9.20	Day 4.9.20	Day 5.9.20
	Monday	Tuesday	Wed	Thu	Fri	Sat

***Lectures in Community Medicine**: shall be interactive with a substantial amount of case based discussions
****Field Visits in Community medicine**: Medical Records Section, Post Partum Unit, Elementary Nursing Practices, National Vector Borne Diseases Control Program (malaria Clinic), Blood bank, CSSD, Mental Health (Department of Psychiatry), Rehabilitation Centre (Concerned departments of Physiotherapy), STD clinic, Revised National Tuberculosis Control Program (Pulmonary Medicine Department), Aarogyabhavan (Health department of Ahmedabad Municipal Corporation)
****Group Discussion and SDL topics**: Assessment of health status of a community, Social aspects of demography, Adverse sex ratio, Child health in India and global aspects, Urbanization and Industrialization, Environment and Health, Global warming, Social and cultural factors related to health and disease, Lifestyle disorders, women health in India, Health services in rural and urban India

Note-

* Contributors:	All the faculties of 4 pre-clinical departments and MCI, Nodal centre, Smt NHLMMC, Ahmedabad
*Future planning	In coming times, we will upgrade this time table specially in terms of integration (for example of inclusion of a greater number of linker sessions)
*Annexures	Following pages are having annexures I to IV, in which all the competencies are listed.

Annexure I: List of competencies- Anatomy

TOPIC	Number of Lectures	Division of Topics
General Anatomy Anatomical terminology	01	• Normal anatomical position, various planes, relation, comparison, laterality & movement in our body
Bone	02	• Composition of bone and bone marrow & parts, blood and nerve supply of a long bone • Laws of ossification & enumerate special features of a sesamoid bones
Cartilage	01	• Various types of cartilage with its structure & distribution in body
Joints	01	• Describe various joints with subtypes and examples & explain the concept of nerve supply of joints & Hilton's law
Muscle	02	• Classify muscle tissue according to structure & action. Enumerate parts of skeletal muscle. • Differentiate between tendons and aponeuroses with example. Explain Shunt and spurt muscles
Skin & Fascia	02	• Describe different types of skin & dermatomes in body, structure & function of skin with its appendages & explain principles of skin incisions. • Describe superficial fascia along with fat distribution in body & modifications of deep fascia with its functions.
Cardiovascular system	03	• Differentiate between blood vascular and lymphatic system, differentiate between pulmonary and systemic circulation. • List general differences between arteries & veins. Explain functional difference between elastic, muscular arteries and arterioles, portal system giving examples. • Explain the concept of anastomoses and collateral circulation with significance of end-arteries & functions of meta-arterioles, precapillary sphincters, arterio-venous anastomoses & define thrombosis, infarction & aneurysm.
Lymphatic system	02	• List the components and functions of the lymphatic system. Describe structure of lymph capillaries & mechanism of lymph circulation. • Explain the concept of lymphoedema and spread of tumors via lymphatics and venous system
Nervous system	03	• Describe general plan of nervous system with components of central, peripheral & autonomic nervous systems. List components of nervous tissue and their functions. • Describe parts of a neuron and classify them based on number of processes, size & function. Describe structure of

		a typical spinal nerve. • Describe principles of sensory and motor innervation of muscles. Concept of loss of innervation of a muscle with its applied anatomy & various types of synapses. Describe differences between sympathetic and spinal ganglia.
General Histology Introduction to histology	01	• Study of microscopes & common objects
Epithelium	02	• Identify epithelium under the microscope, describe the various types (simple) that correlate to its function. • Describe stratified epithelium, its type by correlating with their functions & ultrastructure of epithelium.
Connective tissue	01	• Describe & identify various types of connective tissue with functional correlation & ultrastructure of connective tissues.
Muscular tissue	01	• Describe & identify various types of muscles, under the microscope by classifying with their structure correlating with their functions & ultrastructure of muscular tissue.
Nervous tissue	02	• Describe & Identify multipolar & unipolar neurons with their structure-function correlation. • Ganglia, peripheral nerve & ultrastructure of nervous tissue.
Blood vessels	01	• Identify elastic, muscular blood vessels & capillaries under the Microscope, various types and structure-functions correlating to each other & ultrastructure of blood vessels.
Glands & lymphatic tissue	03	• Identify exocrine gland under the microscope & distinguish between serous, mucous and mixed acini. • Identify the lymphoid tissue under the microscope & describe microanatomy of lymph node & spleen by correlating the structure with function. • Thymus & tonsil by correlating the structure with function.
Bone & cartilage	02	• Identify bone under the microscope; classify various types and describe the structure-function correlation of the same. • Identify cartilage under the microscope & describe various types and structure- function correlation of the same.
Integumentary system	01	• Identify the skin, types and its appendages under the microscope and correlate the structure with function.
General Embryology Introduction to embryology	01	• Describe the stages of human life & explain the terms- phylogeny, ontogeny, trimester & viability.
Gametogenesis and fertilization	04	• Describe the uterine changes occurring during the menstrual cycle & synchrony between the ovarian and menstrual cycles. • Describe spermatogenesis and oogenesis along with diagrams. • Describe the stages and consequences of fertilization and describe the anatomical principles underlying contraception. • Describe teratogenic influences; fertility, sterility, surrogate

		Motherhood & social significance of “sex-ratio”.
Second week of development	04	• Describe cleavage and formation of blastocyst & development of trophoblast. • Describe the process of implantation & common abnormal sites of implantation. • Describe the formation of extra-embryonic mesoderm and coelom, bilaminar disc and prochordal plate. • Describe in brief abortion; decidual reaction, pregnancy test
3rd to 8th week of development	04	• Describe the formation & fate of the primitive streak and notochord. • Describe the process of neurulation, development of somites and intra-embryonic coelom. • Explain embryological basis of congenital malformations, nucleus pulposus, sacrococcygeal teratomas, neural tube defects. • Describe the diagnosis of pregnancy in first trimester and role of teratogens, alpha-fetoprotein.
Fetal membranes	04	• Describe formation, functions & fate of-chorion: amnion; yolk sac; allantois &deciduas. • Describe formation, structure of umbilical cord & describe various types of umbilical cord attachments. • Describe formation of placenta, its physiological functions, foeto-maternal circulation & placental barrier. • Describe embryological basis of twinning in monozygotic & dizygotic twins & role of placental hormones in uterine growth with parturition. Explain embryological basis of estimation of fetal age.
Prenatal Diagnosis	01	• Describe various methods of prenatal diagnosis.Describe indications, process and disadvantages of amniocentesis & chorion villus biopsy.
Ethics in anatomy	01	• Respect and follow the correct procedure when handling cadavers and other biologic tissue.
Upper limb Pectoral region	02	• Describe attachment, nerve supply & action of pectoralis major and pectoralis minor. • Breast: Describe the location, extent, deep relations, structure, age changes, blood supply, lymphatic drainage, microanatomy, applied anatomy & development.
Axilla, Shoulder and Scapular region	07	• Describe dermatomes of upper limb & describe boundaries and contents of axilla & describe the origin, extent, course, parts, relations and branches of axillary artery & tributaries of vein. • Describe formation, branches, relations, area of supply of branches. Explain variations in formation of brachial plexus. Explain the anatomical basis of clinical features of Erb's palsy and Klumpke's paralysis • Describe the anatomical groups of axillary lymph nodes and specify their areas of drainage. Explain anatomical basis of enlarged axillary lymph nodes. • Describe, position, attachment, nerve supply and actions of trapezius and latissimus dorsi. Describe the arterial anastomosis around the scapula and mention the boundaries of triangle of auscultation. • Describe and identify the deltoid and rotator cuff muscles & describe attachment of serratus anterior with its action.

		• Describe shoulder joint for– type, articular surfaces, capsule, synovial membrane, ligaments, relations, movements, muscles involved, blood supply, nerve supply and applied anatomy. • Describe axillary nerve in detail and explain anatomical basis of injury to nerve during intramuscular injections.
Arm and Cubital fossa	05	• Describe and explain Fascia of upper limb and compartments, veins of upper limb and its lymphatic drainage. • Describe the group of muscles of arm with emphasis on biceps and triceps brachii. • Describe origin, course, relations, branches, tributaries and termination of important nerves and vessels in arm. • Describe boundaries and contents of cubital fossa. • Describe the anastomosis around the elbow joint. Describe the anatomical basis of venepuncture of cubital veins and Saturday night paralysis.
Forearm & Hand	10	• Describe important muscle groups of front of forearm with attachments, nerve supply and actions. • Describe origin, course, relations, branches, tributaries and termination of important nerves and vessels of the forearm. • Describe flexor retinaculum with its attachments. Explain anatomical basis of carpal tunnel syndrome. • Describe small muscles of hand. Also describe movements of thumb and muscles involved. • Describe course and branches of important blood vessels and nerves in hand and describe anatomical basis of Claw hand. • Describe fibrous flexor sheaths, ulnar bursa, radial bursa and digital synovial sheaths. • Describe fascial spaces of palm and its applied anatomy. • Describe important muscle groups of back of forearm with attachments, nerve supply and actions. • Identify & describe origin, course, relations, branches, tributaries & termination of important nerves and vessels of back of forearm. Describe the anatomical basis of Wrist drop. • Describe compartments deep to extensor retinaculum & describe extensor expansion formation.
Joints of upper limb	02	• Describe the type, articular surfaces, capsule, synovial membrane, ligaments, relations, movements, blood and nerve supply of elbow joint, proximal and distal radio-ulnar joints • Describe Wrist joint, sternoclavicular joint & carpometacarpal joint (first).
Thorax Thoracic cage	08	• Describe & demonstrate extent, attachments, direction of fibres, nerve supply and actions of intercostal muscles. • Describe & demonstrate origin, course, relations and branches of a typical intercostal nerve. • Mention origin, course and branches/ tributaries of: 1) anterior & posterior intercostal vessels 2) internal thoracic vessels

		• Mention the origin, course, relations and branches of 1) atypical intercostal nerve 2) superior intercostal artery, subcostal artery • Describe & demonstrate type, articular surfaces & movements of manubriosternal, costovertebral, costotransverse and xiphisternal joints. • Describe & demonstrate mechanics and types of respiration • Describe costochondral and interchondral joints • Describe boundaries and contents of the superior, anterior, middle and posterior mediastinum.
Heart & Pericardium	04	• Describe subdivisions, sinuses in pericardium, blood supply and nerve supply of pericardium. • Describe external and internal features of each chambers of heart. • Describe origin, course and branches of coronary arteries. Describe anatomical basis of ischaemic heart. • Describe the formation, course, tributaries and termination of coronary sinus. • Describe the fibrous skeleton of heart. Write the parts, position and arterial supply of the conducting system of heart.
Mediastinum	04	• Describe the external appearance, relations, blood supply, nerve supply,lymphatic drainage and applied anatomy of oesophagus • Describe the extent, relations tributaries of thoracic duct and enumerate its applied anatomy • Describe origin, course, relations, tributaries and termination of superior venacava, azygos, hemiazygos and accessory hemiazygos veins • Mention the extent, branches and relations of arch of aorta & descending thoracic aorta • Mention the location and extent of thoracic sympathetic chain • Describe the splanchnic nerves • Mention the extent, relations and applied anatomy of lymphatic duct
Lungs & Trachea	03	• Mention the blood supply, lymphatic drainage and nerve supply of pleura, extent of pleura and describe the pleural recesses and their applied anatomy. • Identify side, external features and relations of structures which form root of lung & bronchial tree and their clinical correlate • Describe a bronchopulmonary segment. Identify phrenic nerve & describe its formation & distribution • Mention the blood supply, lymphatic drainage and nerve supply of lungs • Describe the extent, length, relations, blood supply, lymphatic drainage and nerve supply of trachea.
Abdomen Anterior abdominal wall	04	• Describe the Planes (transpyloric, transtubercular, subcostal, lateral vertical, linea alba, linea semilunaris), regions & Quadrants of abdomen. • Describe & identify the Fascia, nerves & blood vessels of anterior abdominal wall.

		• Describe the formation of rectus sheath and its contents • Describe extent, boundaries, contents of Inguinal canal including Hesselbach's triangle. • Explain the anatomical basis of inguinal hernia. AN44.6 Describe & demonstrate attachments of muscles of anterior abdominal wall • Enumerate common Abdominal incisions
Posterior abdominal wall	02	• Describe Thoracolumbar fascia. • Describe Lumbar plexus for its root value, formation & branches. • Mention the major subgroups of back muscles, nerve supply and action.
Male external genitalia	03	• Describe coverings, internal structure, side determination, blood supply, nerve supply, lymphatic drainage & descent of testis with its applied anatomy • Describe parts of Epididymis • Describe Penis under following headings: (parts, components, blood supply and lymphatic drainage) • Explain the anatomical basis of VaricocoeleExplain the anatomical basis of Phimosis & Circumcision
Abdominal cavity	12	• Describe boundaries and recesses of Lesser & Greater sac Name various peritoneal folds & pouches with its explanation • Explain anatomical basis of Ascites & Peritonitis • Explain anatomical basis of Subphrenic abscess • Describe major viscera of abdomen under following headings: stomach, small intestines, large intestines, liver, extrahepatic biliary apparatus, pancreas, kidney, ureter & suprarenal gland (anatomical position, external and internal features, important peritoneal and other relations, blood supply, nerve supply, lymphatic drainage and applied aspects) • Explain the anatomical basis of Splenic notch, Accessory spleens, Kehr's sign, Different types of vagotomy, Liver biopsy (site of needle puncture), Referred pain in cholecystitis, Obstructive jaundice, Referred pain around umbilicus, Radiating pain of kidney to groin & Lymphatic spread in carcinoma stomach. • Mention the clinical importance of Calot's triangle • Describe & identify the formation, course relations and tributaries of Portal vein, Inferior vena cava & Renal vein • Describe & identify the origin, course, important relations and branches of Abdominal aorta, Coeliac trunk, Superior mesenteric, Inferior mesenteric & Common iliac artery • Enumerate the sites of portosystemic • Explain the anatomic basis of hematemesis& caput medusae in portal hypertension • Describe important nerve plexuses of posterior abdominal wall • Describe the attachments, openings, nerve supply & action of the thoracoabdominal diaphragm • Describe the abnormal openings of thoracoabdominal diaphragm and diaphragmatic hernia

Pelvis Pelvic wall & viscera	09	• Describe & identify the muscles of Pelvic diaphragm • Describe the (position, features, important peritoneal and other relations, blood supply, nerve supply, lymphatic drainage and clinical aspects of) important male & female pelvic viscera (urinary bladder, prostate, urethra, rectum, anal canal, uterus, ovary and fallopian tube) • Describe the origin, course, important relations and branches of internal iliac artery • Describe the branches of sacral plexus • Explain the anatomical basis of suprapubic cystostomy, Urinary obstruction in benign prostatic hypertrophy, Retroverted uterus, Prolapse uterus, Internal and external haemorrhoids, Anal fistula, Vasectomy, Tubal pregnancy & Tubal ligation • Describe the neurological basis of Automatic bladd Mention the lobes involved in benign prostatic hypertrophy & prostatic cancer • Mention the structures palpable during vaginal & rectal examination.
Perineum	03	• Describe the superficial & deep perineal pouch (boundaries and contents) • Describe & identify Perineal body • Describe Perineal membrane in male & female • Describe boundaries, content & applied anatomy of Ischiorectal fossa • Explain the anatomical basis of Perineal tear, Episiotomy, Perianal abscess and Anal fissure
Lower limb Front & Medial side of thigh	03	• Describe origin, course, relations, branches, tributaries & termination of important nerves and vessels of anterior part of the thigh • Describe major muscles with their attachment, nerve supply and actions • Describe boundaries, floor, roof and contents of femoral triangle • Explain anatomical basis of Psoas abscess & Femoral hernia Describe and demonstrate adductor canal with its content
Gluteal region & back of thigh	05	• Describe origin, course, relations, branches, tributaries & termination of important nerves and vessels of gluteal region • Describe anatomical basis of sciatic nerve injury during gluteal intramuscular injections • Explain the anatomical basis of Trendelenburg sign • Describe the hamstrings group of muscles with their attachment, nerve supply and actions • Describe the origin, course, relations, branches, tributaries & termination of important nerves and vessels on the back of thigh • Describe the boundaries, roof, floor, contents and relations of popliteal fossa
Hip joint	02	• Describe the type, articular surfaces, capsule, synovial membrane, ligaments, relations, movements and muscles

		involved, blood and nerve supply, bursae around the hip joint • Describe anatomical basis of complications of fracture neck of femur • Describe dislocation of hip joint and surgical hip replacement
Knee joint, Anterolateral compartment of leg & dorsum of foot	05	• Describe major muscles of anterolateral compartment of leg with their attachment, nerve supply and actions • Describe origin, course, relations, branches (or tributaries), termination of important nerves and vessels of anterior compartment of leg • Explain the anatomical basis of foot drop • Describe the type, articular surfaces, capsule, synovial membrane, ligaments, relations, movements and muscles involved, blood and nerve supply, bursae around the knee joint • Explain the anatomical basis of locking and unlocking of the knee joint • Describe knee joint injuries with its applied anatomy Explain anatomical basis of Osteoarthritis
Back of Leg & Sole	04	• Describe the major muscles of back of leg with their attachment, nerve supply and actions • Describe the origin, course, relations, branches, tributaries & termination of important nerves and vessels of back of leg • Explain the concept of “Peripheral heart” • Explain the anatomical basis of rupture of calcaneal • Describe factors maintaining importance arches of the foot with its importance • Explain the anatomical basis of Flat foot & Club foot • Explain the anatomical basis of Metatarsalgia & Plantar fasciitis
General Features, Joints	04	• Describe the type, articular surfaces, capsule, synovial membrane, ligaments, relations, movements and muscles involved, blood and nerve supply of tibiofibular and ankle joint • Describe the subtalar and transverse tarsal joints • Describe Fascia lata, Venous drainage, Lymphatic drainage, Retinacula & Dermatomes of lower limb • Explain anatomical basis of enlarged inguinal lymph nodes • Explain anatomical basis of varicose veins and deep vein thrombosis
Genetics Chromosomes	02	• Describe the structure of chromosomes with classification • Describe technique of karyotyping with its applications • Describe the Lyon's hypothesis
Patterns of Inheritance	04	• Describe the various modes of inheritance with examples. Pedigree charts for the various types of inheritance & give examples of diseases of each mode of inheritance. • Describe multifactorial inheritance with examples • Describe the genetic basis & clinical features of Achondroplasia, Cystic Fibrosis, Vitamin D resistant rickets,

		Haemophilia, Duchene's muscular dystrophy & Sickle cell anaemia
Principle of Genetics, Chromosomal Aberrations & Clinical Genetics	04	• Describe the structural and numerical chromosomal aberrations • Explain the terms mosaics and chimeras with example • Describe the genetic basis & clinical features of Prader Willi syndrome, Edward syndrome & Patau syndrome • Describe genetic basis of variation: polymorphism and mutation • Describe the principles of genetic counseling
Head & Neck Scalp	01	• Describe the layers of scalp, its blood supply, its nerve supply and surgical importance • Describe emissary veins with its role in spread of infection from extracranial route to intracranial venous sinuses
Face & parotid region	04	• Describe muscles of facial expression and their nerve supply • Describe sensory innervation of face • Describe origin /formation, course, branches /tributaries of facial vessels • Describe branches of facial nerve with distribution • Describe cervical lymph nodes and lymphatic drainage of head, face and neck • Identify superficial muscles of face, their nerve supply and actions • Explain the anatomical basis of facial nerve palsy • Explain surgical importance of deep facial vein • Describe the parts, borders, surfaces, contents, relations and nerve supply of parotid gland with course of its duct and surgical importance • Explain the anatomical basis of Frey's syndrome
Posterior triangle of neck	02	• Describe attachments, nerve supply, relations and actions of sternocleidomastoid • Explain anatomical basis of wry neck • Describe attachments of 1) inferior belly of omohyoid, 2)scalenus anterior, 3) scalenus medius& 4) levator scapulae
Cranial cavity	02	• Describe dural folds &dural venous sinuses & clinical importance of dural venous sinuses. • Describe pitutary gland. Explain effect of pituitary tumours on visual pathway.
Orbit	04	• Describe & identify extra ocular muscles of eyeball • Describe nerves and vessels in the orbit • Describe anatomical basis of Horner's syndrome • Enumerate components of lacrimal apparatus • Explain the anatomical basis of oculomotor, trochlear and abducent nerve palsies along with strabismus
Anterior Triangle	02	• Describe boundaries and subdivisions of anterior triangle • Describe boundaries and contents of muscular, carotid, digastric and submental triangles
Temporal and Infratemporal	04	• Describe extent, boundaries and contents of temporal and infratemporal fossae. Describe & demonstrate

regions		attachments, direction of fibres, nerve supply and actions of muscles of mastication • Describe articulating surface, type & movements of temporomandibular joint • Explain the clinical significance of pterygoid venous plexus • Describe the features of dislocation of temporomandibular joint
Submandibular region	01	• Describe the morphology, relations and nerve supply of submandibular salivary gland & submandibular ganglion • Describe the basis of formation of submandibular stones
Deep structures in the neck	09	• Describe the parts, extent, attachments, modifications of deep cervical fascia • Describe location, parts, borders, surfaces, relations & blood supply of thyroid gland • Describe the origin, parts, course & branches subclavian artery • Describe origin, course, relations, tributaries and termination of internal jugular & brachiocephalic veins • Describe extent, drainage & applied anatomy of cervical lymph nodes • Describe the extent, formation, relation & branches of cervical sympathetic chain • Describe the course and branches of IX, X, XI & XII nerve in the neck • Describe the anatomically relevant clinical features of Thyroid swellings • Describe the clinical features of compression of subclavian artery and lower trunk of brachial plexus by cervical rib • Describe the fascial spaces of neck
Mouth, Pharynx & Palate	03	• Describe the 1) morphology, relations, blood supply and applied anatomy of palatine tonsil 2) composition of soft palate • Describe the components and functions of Waldeyer's lymphatic ring • Describe the boundaries and clinical significance of pyriform fossa • Describe the anatomical basis of tonsillitis, tonsillectomy, adenoids and peri-tonsillar abscess • Describe the clinical significance of Killian's dehiscence
Cavity of Nose	03	• Describe features of nasal septum, lateral wall of nose, their blood supply and nerve supply • Describe location and functional anatomy of paranasal sinuses • Describe anatomical basis of sinusitis & maxillary sinus tumours
Larynx	02	• Describe the morphology, identify structure of the wall, nerve supply, blood supply and actions of intrinsic and extrinsic muscles of the larynx • Describe the anatomical aspects of laryngitis • Describe anatomical basis of recurrent laryngeal nerve injury
Tongue	02	• Describe the morphology, nerve supply, embryological basis of nerve supply, blood supply, lymphatic drainage and actions of extrinsic and intrinsic muscles of tongue

		• Describe hypoglossal nerve in detail & the anatomical basis of hypoglossal nerve palsy
Organs of hearing andequilibrium	03	• Describe & identify the parts, blood supply and nerve supply of external ear • Describe the boundaries, contents, relations and functional anatomy of middle ear and auditory tube • Describe the features of internal ear • Explain anatomical basis of otitis externa and otitis mediaExplain anatomical basis of myringotomy
Eyeball	02	• Describe parts and layers of eyeball • Describe the anatomical aspects of cataract, glaucoma & central retinal artery occlusion • Describe the position, nerve supply and actions of intraocular muscles
Back Region	02	• Describe the contents of the vertebral canal • Describe the boundaries and contents of Suboccipital triangle • Describe the position, direction of fibres, relations, nerve supply, actions of semispinalis capitis and splenius capitis
Head & neck Joints	01	• Describe the atlantooccipital joint & atlantoaxial joint with their movements.
Neuroanatomy Meninges & CSF	01	• Describe & identify various layers of meninges with its extent & modifications • Describe circulation of CSF with its applied anatomy
Spinal cord	03	• Describe external features of spinal cord • Describe extent of spinal cord in child & adult with its clinical implication • Draw & label transverse section of spinal cord at mid-cervical & midthoracic level • Enumerate ascending & descending tracts at mid thoracic level of spinal cord
Medulla oblongata	02	• Describe external features of medulla oblongata • Describe transverse section of medulla oblongata at the level of 1) pyramidal decussation, 2) sensory decussation 3) Inferior olivary nucleus • Enumerate cranial nerve nuclei in medulla oblongata with their functional group • Describe anatomical basis & effects of medial & lateral medullary syndrome
Pons	02	• Describe external features of pons • Describe transverse section of pons at the upper and lower level • Enumerate cranial nerve nuclei in pons with their functional group
Cerebellum	02	• Describe external & internal features of cerebellum • Describe connections of cerebellar cortex and intracerebellar nuclei • Describe anatomical basis of cerebellar dysfunction
Midbrain	02	• Describe external & internal features of midbrain • Describe internal features of midbrain at the level of superior & inferior colliculus

		• Describe anatomical basis & effects of Benedikt's and Weber's syndrome
Cranial nerve nuclei & Cerebral hemispheres	07	• Enumerate cranial nerve nuclei with its functional component • Describe surfaces, sulci, gyri, poles & functional areas of cerebral • Describe the white matter of cerebrum • Enumerate parts & major connections of basal ganglia & limbic lobe • Describe boundaries, parts, gross relations, major nuclei and connections of dorsal thalamus, hypothalamus, epithalamus, metathalamus and subthalamus • Describe & identify formation, branches & major areas of distribution of circle of Willis
Ventricular System	02	• Describe parts, boundaries & features of IIIrd, IVth& lateral ventricle • Describe anatomical basis of congenital hydrocephalus

Annexure II: **List of competencies-** Physiology

TOPIC	NUMBER OF LECTURES	DIVISION OF TOPICS
General Physiology	6	1.Describe the structure and functions of a mammalian cell 2. Describe and discuss the principles of homeostasis 3. Describe and discuss transport mechanisms across cell membranes 4. Describe intercellular communication 5. Describe the fluid compartments of the body, its ionic composition & measurements 6. Describe and discuss the molecular basis of resting membrane potential and action potential in excitable tissue
Blood - I	15	1.Describe the composition and functions of blood components 2.Discuss the origin, forms, variations and functions of plasma proteins 3.Describe and discuss the synthesis and functions of Haemoglobin and explain its breakdown. 4.Describe variants of haemoglobin 5.Describe RBC formation (erythropoiesis & its regulation) and its Functions 6.Describe WBC formation (granulopoiesis) and its regulation 7.Describe the formation of platelets, functions and variations
Nerve-muscle Physiology - I	15	1..Describe the structure and functions of a neuron and neuroglia; Discuss Nerve Growth Factor & other growth factors/cytokines 2. Describe the types, functions & properties of nerve fibers 3. Describe the degeneration and regeneration in peripheral nerves
Blood - II		1. Describe the physiological basis of hemostasis and, anticoagulants. 2.Define and classify different types of immunity. 3.Describe the development of immunity and its regulation 4.Describe steps for reticulocyte and platelet count
Nerve-muscle Physiology - II		1.Describe the structure of neuro-muscular junction and transmission of impulses 2.Describe the different types of muscle fibres and their structure 3.Describe action potential and its properties in different muscle types (skeletal & smooth) 4.Describe the molecular basis of muscle contraction in skeletal and in smooth muscles
Cardiovascular system - I	20	1.Describe the functional anatomy of heart including chambers, sounds; and Pacemaker tissue and conducting system.

		2.Discuss the events occurring during the cardiac cycle 3.Describe generation, conduction of cardiac impulse 4.Describe abnormal ECG, arrythmias, heart block and myocardial Infarction
Cardiovascular system – II		1.Describe and discuss local and systemic cardiovascular regulatory mechanisms 2.Describe the factors affecting heart rate, regulation of cardiac output & blood pressure
Respiratory system – I	15	1.Describe the functional anatomy of respiratory tract 2.Describe the mechanics of normal respiration, pressure changes during ventilation, lung volume and capacities,alveolar surface tension, compliance, airway resistance, ventilation, V/P ratio, diffusion capacity of lungs
Cardiovascular system – III		1.Describe & discuss regional circulation including microcirculation, lymphatic circulation, coronary, cerebral, capillary, skin, foetal, pulmonary and splanchnic circulation 2.Describe the patho-physiology of shock, syncope and heart failure
Respiratory system – II		1.Describe and discuss the transport of respiratory gases: Oxygen and Carbon dioxide 2.Describe and discuss the physiology of high altitude and deep sea diving
Renal Physiology - I	15	1.Describe structure and function of kidney 2.Describe the structure and functions of juxta glomerular apparatus and role of renin-angiotensin system 3.Describe the mechanism of urine formation involving processes of filtration, tubular reabsorption & secretion; concentration and diluting mechanism 4.Describe & discuss the significance & implication of Renal clearance
Gastrointestinal Tract – I		1.Describe the structure and functions of digestive system 2.Describe the composition, mechanism of secretion, functions, and regulation of saliva, gastric, pancreatic, intestinal juices and bile secretion 3.Describe GIT movements, regulation and functions. Describe defecation reflex. Explain role of dietary fibre. 4.Describe the source of GIT hormones, their regulation and functions
Renal Physiology – II		1.Describe the innervations of urinary bladder, physiology of micturition and its abnormalities
Gastrointestinal Tract - II		1.Describe & discuss the structure and functions of liver and gall bladder
Reproductive Physiology - I	10	1.Describe and discuss sex determination; sex differentiation and their abnormities and outline psychiatry and practical implication of sex determination. 2.Describe and discuss puberty: onset, progression, stages; early and delayed puberty and outline adolescent clinical and psychological association. 3.Describe male reproductive system: functions of testis and control of spermatogenesis & factors modifying it and outline its association with psychiatric illness

Endocrine system - I	15	1.Describe & differentiate the mechanism of action of steroid, protein and amine hormones 2.Describe the synthesis, secretion, transport, physiological actions, regulation and effect of altered (hypo and hyper) secretion of pituitary gland and hypothalamus
Reproductive Physiology - II		1.Describe female reproductive system: (a) functions of ovary and its control; (b) menstrual cycle - hormonal, uterine and ovarian changes 2.Describe and discuss the physiological effects of sex hormones 3.Describe and discuss the effects of removal of gonads on physiological functions 4.Describe and discuss the physiology of pregnancy, parturition & lactation and outline the psychology and psychiatry-disorders associated with it.
Endocrine system – II		1.Describe the synthesis, secretion, transport, physiological actions, regulation and effect of altered (hypo and hyper) secretion of thyroid gland, parathyroid gland, adrenal gland, pancreas 2.Describe the physiology of bone and calcium metabolism
Neurophysiology - I	30	1.Describe and discuss the organization of nervous system 2.Describe and discuss the functions and properties of synapse, reflex, receptors 3.Describe and discuss somatic sensations & sensory tracts 4.Describe and discuss motor tracts, mechanism of maintenance of tone, control of body movements, posture and equilibrium & vestibular apparatus
Integrated Physiology – I	9	1.Describe physiology of Infancy 2.Describe and discuss physiology of aging; free radicals and antioxidants
Neurophysiology – II		1.Describe and discuss structure and functions of reticular activating system, autonomic nervous system (ANS) 2.Describe and discuss functions of cerebral cortex, basal ganglia, thalamus, hypothalamus, cerebellum and limbic system and their abnormalities 3.Describe and discuss behavioural and EEG characteristics during sleep and mechanism responsible for its production 4.Describe and discuss the physiological basis of memory, learning and speech
Neurophysiology – III		1.Describe and discuss perception of smell and taste sensation 2.Describe and discuss patho-physiology of altered smell and taste sensation Describe and discuss functional anatomy of ear and auditory pathways & physiology of hearing 3.Describe and discuss functional anatomy of eye, physiology of image formation, physiology of vision including colour vision, refractive errors, colour blindness, physiology of pupil and light reflex

		4.Describe and discuss the physiological basis of lesion in visual pathway
Integrated Physiology – II		1.Describe and discuss mechanism of temperature regulation 2.Describe and discuss adaptation to altered temperature (heat and cold) 3.Describe and discuss mechanism of fever, cold injuries and heat stroke
Integrated Physiology – III		1.Describe and discuss physiological consequences of sedentary lifestyle 2.Discuss & compare cardio-respiratory changes in exercise (isometric and isotonic) with that in the resting state and under different environmental conditions (heat and cold) 3.Discuss the concept, criteria for diagnosis of Brain death and its Implications

Annexure III: **List of competencies**- Biochemistry

TOPIC	NUMBER OF LECTURES	DIVISION OF TOPICS
Cell	2	Structure and Function of Cell Structure and function of Subcellular Organelles Cell Membrane – Function
Chemistry of Carbohydrate	3	Monosaccharide Disaccharide Polysaccharide
Chemistry of Lipids	3	Simple Lipid Compound Lipid Derived Lipids
Chemistry of Proteins	4	Amino Acids – Classification and properties Proteins – Classification and structural organization Plasma Protein
Enzymes	4	Enzyme Isoenzyme and Coenzyme Basic principle of Enzyme activity Enzyme Inhibition Application of enzymes
Biological Oxidation	2	Bioenergetics Electron Transport Chain Oxidative Phosphorylation
Vitamins	5	Fat and Water Soluble Vitamins
Metabolism of Carbohydrate	6	Digestion, Absorption and storage of carbohydrate Glycolysis TCA Cycle Gluconeogenesis Glycogen Metabolism HMP Shunt Regulation of Blood Glucose Level Diabetes Mellitus Galactose and Fructose Metabolism
Metabolism of Lipids	6	Digestion, Absorption and storage of Lipids

		Triglyceride Metabolism Fatty Acid Metabolism Cholesterol Metabolism Lipoprotein Metabolism Prostaglandins Obesity and Atherosclerosis
Metabolism of Protein	6	Digestion, Absorption of Proteins Nitrogen Metabolism and Urea Cycle Metabolism of Individual Amino Acid and associated disorder
Integration of Metabolism	1	Integration of Metabolism in Fed and Fasting
Mineral Metabolism	4	Metabolism, Homeostasis and functions of minerals and their associated disorders
Nutrition	3	Importance of various dietary components and dietary fibres Protein Energy Malnutrition Balance Diet
Chemistry of Nucleic Acid	3	Structure and function of nucleic acid
Metabolism of Nucleic Acid	3	Metabolic of purine and pyrimidine and associated disorders
Genetics	6	Replication, Transcription and Translation in Eukaryotes and Prokaryotes Genetic Code and Mutation Protein Targeting
Molecular Biology	6	Regulation of gene expression in prokaryotes and eukaryotes Recombinant DNA Technology Human Genome Project and Gene Therapy
Chemistry and Metabolism of Hemoglobin	4	Chemistry and Metabolism of Haemoglobin and associated disorder
Organ Function Test	4	Function, tests and associated disorder of Liver, Kidney, Thyroid and Adrenal Gland
Immunology	3	Cellular and Humoral Immunity and vaccine Development
Water and Electrolyte, Acid Base Balance and Imbalance	3	Water and Electrolyte, Acid Base Balance and their associated disorder

TUTORIAL: Biochemistry

01. Functions and components of extracellular matrix
02. Involvement of ECM components in health and disease
03. Interpret laboratory results of enzyme activity
04. Interpret results of blood glucose levels and other laboratory investigations related to disorders of carbohydrate metabolism
05. Interpret laboratory results of analytes associated with metabolism of Lipids
06. Interpret laboratory results of analytes associated with metabolism of Protein
07. Interpret laboratory results of analytes associated with Gout and LeschNyhan Syndrome
08. Interpret results of arterial blood gas analysis in various disorders
09. Xenobiotic Metabolism
10. Role of free radicals and antioxidants in health and disease
11. Advice diet plan for childhood, adults, pregnancy and various diseases
12. Biochemistry of cancer
13. Cerebrospinal Fluid
14. Calculate energy content of different food items

Annexure IV: **List of competencies-** Community Medicine

TOPIC	NUMBER OF LECTURES	DIVISION OF TOPIC
Concept of Health and Disease	10	1. Define and describe the concept of Public Health 2. Define health; describe the concept of holistic health including concept of spiritual health and the relativeness & determinants of health 3. Describe the characteristics of agent, host and environmental factors in health and disease and the multi factorial etiology of disease 4. Describe and discuss the natural history of disease 5. Describe the application of interventions at various levels of prevention 6. Describe and discuss the concepts, the principles of Health promotion and Education, IEC and Behavioral change communication (BCC) 7. Enumerate and describe health indicators 8. Describe the Demographic profile of India and discuss its impact on health 9. Demonstrate the role of effective Communication skills in health in a simulated environment 10. Demonstrate the important aspects of the doctor patient relationship in a simulated environment
Relationship of Social and Behavioural to Health and Disease	05	1. Describe the steps and perform clinico socio-cultural and demographic assessment of the individual, family and community 2. Describe the socio-cultural factors, family (types), its role in health and disease & demonstrate in a simulated environment the correct assessment of socio-economic status 3. Describe and demonstrate in a simulated environment the assessment of barriers to good health and health seeking behaviour 4. Describe social psychology, community behaviour and community relationship and their impact on health and disease 5. Describe poverty and social security measures and its relationship to health and disease
Principals of Health promotion and Education	03	1. Describe various methods of health education with their advantages and limitations 2. Describe the methods of organizing health promotion and education and counselling activities at individual family and community settings 3. Demonstrate and describe the steps in evaluation of health promotion and education program
Environmental Health Problems	16	1. Describe the health hazards of air, water, noise, radiation and pollution 2. Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting

		3. Describe the aetiology and basis of water borne diseases /jaundice/hepatitis/ diarrheal diseases 4. Describe the concept of solid waste, human excreta and sewage disposal 5. Describe the standards of housing and the effect of housing on health 6. Describe the role of vectors in the causation of diseases. Also discuss National Vector Borne disease Control Program 7. Identify and describe the identifying features and life cycles of vectors of Public Health importance and their control measures 8. Describe the mode of action, application cycle of commonly used insecticides and rodenticides
Nutrition	09	1. Describe the common sources of various nutrients and special nutritional requirements according to age, sex, activity, physiological conditions 2. Describe and demonstrate the correct method of performing a nutritional assessment of individuals, families and the community by using the appropriate method 3. Define and describe common nutrition related health disorders (including macro-PEM, Micro-iron, Zn, iodine, Vit. A), their control and management 4. Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment 5. Describe the methods of nutritional surveillance, principles of nutritional education and rehabilitation in the context of sociocultural factors. 6. Enumerate and discuss the National Nutrition Policy, important national nutritional Programs including the Integrated Child Development Services Scheme (ICDS) etc 7. Describe food hygiene 8. Describe and discuss the importance and methods of food fortification and effects of additives and adulteration
Demography and Vital statistics	07	1. Define and describe the principles of Demography, Demographic cycle, Vital statistics 2. Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates 3. Enumerate and describe the causes of declining sex ratio and its social and health implications 4. Enumerate and describe the causes and consequences of population explosion and population dynamics of India 5. Describe the methods of population control 6. Describe the National Population Policy 7. Enumerate the sources of vital statistics including census, SRS, NFHS, NSSO etc
Field Survey	02	1. Environmental Survey 2. Nutritional Survey

ANNEXURE 4 – PROPOSED LIST OF SKILLS

Certifiable Procedural Skills: (ref. GMR 2019)

Comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) – Indian Medical Graduate

Specialty	*Procedure*
General Medicine	· ***Venipuncture (I)*** · ***Intramuscular injection(I)*** · ***Intradermal injection (D)*** · ***Subcutaneous injection(I)*** · ***IV injection (I)*** · ***Setting up IV and calculating drip rate (I)*** · ***Blood transfusion (O)*** · ***Urinary catheterization (D)*** · ***Basic life support (D)*** · ***Oxygen therapy (I)*** · ***Aerosol therapy / nebulization (I)*** · ***Ryle's tube insertion (D)*** · ***Lumbar puncture (O)*** · ***Pleural and ascitic aspiration (O)*** · ***Cardiac resuscitation (D)*** · ***Peripheral blood smear (I)*** · ***Bedside urine analysis (D)***

General Surgery	· ***Basic suturing (I)*** · ***Basic wound care (I)*** · ***Basic bandaging (I)*** · ***Incision and drainage of superficial abscess (I)*** · ***Early management of trauma (I) and trauma life support (D)***
Orthopedics	· ***Application of basic splints and slings (I)*** · ***Basic fracture and dislocation management (O)*** · ***Compression bandage (I)***
Gynecology	· ***Per Speculum (PS) and Per Vaginal (PV) examination (I)*** · ***Visual Inspection of Cervix with Acetic Acid (VIA) (O)*** · ***Pap Smear (I)*** · ***Intra- Uterine Contraceptive Device (IUCD) insertion & removal (I)***
Obstetrics	· ***Obstetrics examination (I)*** · ***Episiotomy (I)*** · ***Normal labor and delivery (including partogram) (I)***
Pediatrics	· ***Neonatal resuscitation (D)*** · ***Pediatric IV line (I)*** · ***Intraosseous line (O)***
Forensic Medicine	· ***Documentation and certification of trauma (I)*** · ***Diagnosis and certification of death (D)*** · ***Legal formalities related to emergency cases (D)*** · ***Certification of medical-legal cases e.g. Age estimation,***

	sexual assault etc. (D) · ***Establishing communication in medico-legal cases with police, public health authorities, other concerned departments, etc (D)***
Otorhinolaryngology	· ***Anterior nasal packing (D)*** · ***Otoscopy (I)***
Ophthalmology	· ***Visual acuity testing (I)*** · ***Digital tonometry (D)*** · ***Indirect ophthalmoscopy (O)*** · ***Epilation (O)*** · ***Eye irrigation (I)*** · ***Instillation of eye medication (I)*** · ***Ocular bandaging (I)***
Dermatology	· ***Slit skin smear for leprosy (O)*** · ***Skin biopsy (O)*** · ***Gram's stained smear (I)*** · ***Gram's stain smear (D)*** · ***KOH examination (D)*** · ***Dark ground illumination (O)*** · ***Tissue smear (O)*** · ***Cautery - Chemical and electrical (O)*** · ***Lasers (O)*** · ***Chemical (O).***

I-Independently performed on patients,
O-Observed in patients or on simulations,
D- Demonstration on patients or simulations and performance under supervision in *patients*