KRISHNA INSTITUTE OF MEDICAL SCIENCES, KARAD

MBBS -1101

Community Medicine- 1101-31

Curricula implemented by the university.

(Phase I, II and Part 1st of Phase III M.B.B.S.)

Community Medicine including Humanities

GOALS:

The broad goal of the teaching of undergraduate students in community medicine is to prepare them to function as community and first level physicians in accordance with the institutional goals.

OBJECTIVES:

Knowledge:

At the end of the course the student shall be able

- Explain the principles of sociology including demographic population dynamics.
- Identify social factors related to health, disease and disability in the context of urban and rural societies.
- Appreciate the impact of urbanization on health and disease.
- Observe and interpret the dynamic of community behaviours.
- Describe the elements of normal psychology and social psychology.
- Observe the principles of practice of medicine in hospital and community settings.
- Describe the health care delivery systems including rehabilitation of the disabled in the country.
- Describe the National Health Programmes with particular emphasis on maternal and child health programmes, family welfare planning and population control.
- List the epidemiological methods and techniques.
- Outline the demographic pattern of the country and appreciate the roles of the individuals, family, community and socio-cultural milieu in health and disease.
- Describe the health information systems.
- Enunciate the principles and components of primary health care and the national health policies to achieve the goal of "Health for all".
- Identify the environmental and occupational hazards and their control.
- Describe the importance of water and sanitation in human health.
- To understand the principles of health economies, health administration, health education in relation to community.

Skills:-

At the end of the course, the student shall be able to make use of

- The principles and practice of medicine in hospital and community settings and familiarization with elementary practices.

- Use the Art of communication with patients including history taking and medico social work.
- Use epidemiology as a scientific tool to make rational decisions relevant to community and individual patient intervention.
- Collect, analyze, interpret and present simple community and hospital base data.
- Diagnose and manage common health problems and emergencies at the individual, family and community levels keeping in mind the existing health care resources and in the context of the prevailing socio-culture beliefs.
- Diagnose and manage common nutritional problems at the individual and community level.
- Plan, implement and evaluate a health education programme with skill to use simple audio-visual aids.
- Interact with other members of the health care team and participate in the organization of health care services and implementation of national health programmes.
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Integration:

Develop capabilities of synthesis between cause of illness in the environment or community and individual health and respond with leadership qualities to institute remedial measures for this.

Course Content:

Total hours of teaching in community medicine and Humanities are 376. The distribution of them shall be as follows.

Phase	Semester	Theory	Practical Hours
I	I & II	30	30
II	III & IV	68	132
III Part1st	VI & VII	50	66

Phase II – (3rd and 4th Semester) 68 Hours

General Epidemiology

The concepts of disease.

- Natural history of disease.
- Epidemiological triad.
- Dynamics of diseases transmission.
- Concept of disease control.

Epidemiology

- Definition, types, measurements in epidemiology, epidemiological studies, and Clinical trial, investigation of an epidemic.
- Uses of epidemiology.
- Screening for disease.
- Disinfection, sterilization and control of Hospital acquired infections.
- Immunity.

Environmental health

- Introduction to environment health.
- Water in relation to health and disease.
- Air pollution and ecological balance.
- Housing and health.
- Effects of radiation on human health (Ionizing, Non-ionizing & Nuclear warfare)
- Effects of Noise on human health.
- Meteorological environment.
- Solid waste disposal.
- Disposal of hospital waste.
- Liquid waste disposal
- Water conservation & ecology
- Medical entomology
- Water conservation
- Swine flue
- Ebola virus
- e-waste disposal

Arthropods of medical importance and their control.

Biostatistics (Theory and Practical)

Introduction and uses.
Data- Types, Collection and Presentation.
Centering constants.
Measures of Variation.
Normal distribution.
Sampling methods and Sampling variability.

Tests of significance.

- SE of difference between two means.
- SE of difference between two proportions
- X^2 tests. (Chi-square)
- Students 't' test
  - Paired .
  - Unpaired.
- Statistical fallacies.

- Computers in Medicine

There use at all the stages to be demonstrated. The students should use computers in analysis and presentation of data

Epidemiology of communicable diseases.

- Air borne infections.
- Exanthematous fevers.
- Chicken pox, Rubella, and Measles
- Factors responsible to eradicate small pox.
- Influenza and ARI.
- Diphtheria and Pertussis
- Tuberculosis.
- Faeco-oral infections.
- Poliomyelitis.
- Hepatitis.
- Enteric Fever and Cholera
- Bacillary and Amoebic dysentery.
- Soil transmitted Helminths.
- Tetanus
- Rabies and other Viral Zoonotic disease.
- Leprosy.
- Malaria
- Filariasis.
- Arthropod borne viral diseases.
- Sexually transmitted diseases and their control.
- A.I.D.S.

Examinations at the end of 3rd and 4th semester.

(Phase III (6th and 7th Semester) 50 hrs.

(Teaching in 7th semester includes tutorials also.)

- Community development programmes and multispectral development.
- Comprehensive medical care and Primary health care.
- National Health Policy.
- Maternal and Child Health care.
- Epidemiology of Non-communicable diseases.
- Occupational health.
- Problems of adolescence including Drug dependence.
- Geriatrics
- Vital statistics – sources and uses, Census, Fertility statistics.
- Management information system.
- Mental health.
- Genetics in public health.
- Health planning and management.

- National Health Programmes.
- International health and Voluntary Health Agencies.
- Tutorials.
- Medical Ethics
- Protocol development in clinical trial
- Economics and health
- Health Education and Communication
- Disaster
- Bioethics
- Evaluation of NHP

Examination at the end of 6th and 7th semester.
Practicals

Phase I (Ist And 2nd semester)- 30 hours.

Field visit-

Every Medical College should have adequate transport facilities to take medical undergraduate for field visits. In the phase I total 15 visits, each of 2 hours duration or total 10 visits – each of 3 hours duration (depending on distances) are to be planned by the departments of community medicine. The broad outline of place for educational field visits is given below.

- Hospital visits (O.P.D., Casualty, Immunization clinic, different wards, Kitchen, FW Centre, PPP, Blood Bank, Sterilization section, Infectious disease ward, Minor operation theatre, etc.)
- Rural Health Training Centre.
- Primary Health Centre.
- Urban Health Centre.
- District Health Office (DHO).
- District Training Team (DTT)/IEC Bureau.
- District Tuberculosis Centre.
- Public Health Laboratory.
- District Malaria Office.
- Remand Home.
- Rehabilitation Centre.

III rd Semester, I st Clinical Posting - 66 hours.

Lecture – Cum – Demonstration, at appropriate places

S. No.	Topic	Demonstration
1	Visit to Urban / Rural health Training Centre.	Functions of UHC/ RHTC Manpower & Duty arrangements
2	Immunization Programme	I (demonstration)
3	Immunization Programme	II (Cold Chain)
4	Care of ANC mother	Demonstration of Antenatal case
5	Care of Infant	Demonstration of case
6	Post-natal case of mother/child.	Demonstration of case
7	Contraceptive devices	Situation to be given and sex education.
8	Exclusive breast feeding	Visit to Baby Friendly Hospital
9	Weaning foods	Demonstration
10	Nutritional demonstration	Explain nutritive values of Indian foodstuff
11	Nutritional assessment	Demonstration
12	Anthropometric measurements	Demonstration
13	Nutritional deficiency disorders	With A/V aids or case, Road to Health Chart
14	Protein Energy Malnutrition	With A/V aids or case, ORS preparation
15	Diarrhea as a community health problem	With A/V aids or case
16	ARI as a community health problem	With A/V aids or case
17	Elementary essential drugs	Visit to drug store, Inventory control
18	Examination	

4th Semester 2nd Clinical Posting - 66 hours.

The board guidelines for planning programmes are as follows.

1) Posting for family care study - 6 days
   - Principle of clinical epidemiology
   - Morbidity Survey.
   - Data analysis and presentation.
2) Posting for School Health - 6 days
   - Health check-up of school children.
   - Data analysis and presentation.
   - Health education activities in the school by the students.
3) Visit to Anganwadi and ICDS scheme block - 2 days
4) Visit to Home for aged and discussion on geriatric health problem - 2 days
5) Students' seminars on topics like - 5 days
   - Disaster management
   - Road traffic accidents
   - Population explosion etc.

6) Examinations - 3 days.

- Telemedicine in public health
- T/L – Lecture
- Cognitive domain
- Must know category
- Level II difficult,
- Assessment – F.A. & S.A.
- Tutorials.

Phase III (6th and 7th Semester)

3rd Clinical Posting - 66 hours

Posting: Clinical case presentation by students

1 Introduction to infectious diseases – history taking
2. Exanthematous fever.
3. Diarrhea / Cholera / Dysentery.
4. Tuberculosis
5. Leprosy.
6. Dog – bite case.
7. Tetanus.
8. PUO / Enteric fever / Malaria.
9. S.T.D. / AIDS.
10. Hepatitis
11. Introduction to non- communicable diseases.
    - Rheumatic heart disease.
    - Cancer.
    - Obesity / diabetes.

Examinations

Internship – Short – term research projects to interns to acquaint with research methodology to start during internship posting in a group of 4-5 students

MARKS OF INTERNAL ASSESSMENT:-

Theory –20 marks and practical 20 marks.

The students must secure at least 50%, marks of the total marks fixed for internal assessment in the subject in order to clear the subject.

I) **Theory**

1) 3rd Semester	50 Marks
2) 6th Semester	50 Marks
3) Prelim exam	
4) Prelim exam. Theory Paper I	60 Marks
Paper II	60 Marks
Total	**220 Marks**

Total Theory Internal Assessment marks will be 20

Practical's

1) 1st Clinical rotation exam. -4th Semester	50 Marks
2) 2nd Clinical rotation exam.- 6th Semester	20 Marks
3) Prelim exam.	40 Marks
	10 Marks for Journals
Total	**120 Marks**

Total Practical Internal Assessment marks will be 20.

BOOKS RECMMENDED.

1. Text book of Community Medicine, Kulkarni A.P. and Baride J.P.
2. Park's Textbook of Preventive and Social Medicine, Park
3. Principles of Preventive and Social Medicine, K. Mahajan
4. Textbook of Community Medicine, B. Shridhar Rao.
5. Essentials of Community Medicine, Suresh Chandra.
6. Textbook of Biostatistics, B. K. Mahajan
7. Review in Community Medicine, V.R. Sheshu Babu.

FURTHER READINGS.

Epidemiology and Management for health care for all P.V. Sathe and A.P. Sathe.

Essentials of Preventive Medicine O.P. Ghai and Piyush Gupta.

Record Book:

1) The case records will have to be entered in a record book separately for General Medicine, for Paediatrics and for PSM.
2) In the record book of General Medicine, number of case records for Medicine shall be 12, for Skin & V.D. & Leprosy shall be 3, for Psychiatry shall be 2 and for Chest & TB shall be 3 cases.
3) The certificate of satisfactory completion of all Clinical postings will be entered based on similar certificates from all postings in all the above subjects.
4) In addition, details of the marks secured in the posting ending examination shall be entered on the second page on which the calculations of the internal assessments shall also be stated. Record book will not carry any marks but its satisfactory completion will be a prerequisite for appearing in examination.

COMMUNITY MEDICINE:-

Theory 2 papers of 60 marks each = 120 marks.

Includes problems showing applied aspects of management at primary level including essential drugs, occupational (agro based) diseases rehabilitation and social aspects of community.

Oral (Viva)	10 marks
Practical /Project evaluation	30 marks
Internal Assessment	40 marks
(Theory 20 Marks, Practical 20 Marks)	
Grand Total	**200 marks**

Criteria of passing in various subjects at III MBBS Examination

Sr. No.	Subject	Theory Paper/ Oral/ Practical/Internal Assessment		Maximum Marks in each of the subject	Minimum marks required to pass in each part of any subject		Minimum marks required to pass in each subject out of
01)	Community Medicine	a) Theory	Paper - I	60	60	65	100 / 200
			Paper - II	60			
		b) Oral		10			
		c) Practical		30		15	
		d) Internal Assessment	Theory	20			
			Practical	20		20	

It is compulsory to obtain 50% marks in theory.

It is mandatory to obtain 50% marks in theory + viva/oral.

(The Frequency & other details of Internal Assessment Examinations shall be as stated in Circular dated 15/02/01 table no III & IV. of General Guidelines for U.G. teaching & training & Internal assessment. Passing in Internal Assessment is prerequisite for eligibility to clear the subject.

For passing in Internal Assessment student should secure minimum 30 out of 60 marks (theory & practical combined)

The Internal Assessment Examination shall consist of one clinical case paired with viva-voce for the periodical tests. However, the preliminary examination shall be carried out in a pattern similar to final University examination.

University (Final) Exam: General Medicine

Paper I (60 Marks) Time 3 hours.	**Paper II (60 Marks) Time 3 hours.**
MCQs – 30 Items each of ½ mark Time 30 minutes (Shall cover whole course syllabus stated in Section B and C of Paper I below	MCQs 30 Items each of ½ mark Maximum time 30 minutes (Shall cover whole course syllabus stated in Section B and C of Paper I below
Section B – (Total Marks 25) Two long questions Each of 8 marks & 3 Short Answer Questions of 3 marks each. (3 out of 5 SAQs by choice. On course contents of - Cardiovascular System, Gastrointestinal System, Hepatobiliary System & Pancreas, Haematology, Haemato-oncology& Genetics	**Two long Questions each of 8 marks and** 3 short answer questions (out of 5 SAQs) on course contents of Neurology, Psychiatry, Dermatology, Veneroleprology` & Collagen Disorders
Section C – (Total Marks 20) One long Question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents of Endocrinology, infectious diseases/Tropical Disease, Miscellaneous	One long question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents on Respiratory Diseases, Tuberculosis & Clinical Nutrition and Nephrology
The Max Time for Section B & C shall be of 2 hrs. + 30 minutes	

PATTERN:

THEORY: TWO PAPERS OF 60 MARKS EACH 120 MARKS: -

- Paper I include Concepts in Health & Disease, Sociology / Humanities, Epidemiology, Biostatistics, Communicable and non- communicable diseases, Genetics and Environmental Health., Hospital management.
- Paper II includes Demography & Family Planning, Maternal and child health Nutrition, Occupational Health, Mental Health, Health Education, Health Planning & Management, Health Care Delivery System , National Health Programmes, International Health, Disaster management, Essential & Counter fiet Medicine.
- These are broad divisions. There are some chances of overlapping.

NATURE OF THEROY QUESTION PAPERS:

Final MBBS Examination of subject-PSM

Theory

Section – A

Q. - 1	MCQs-28	for 14 marks.

Section – B

Q. - 2	LAQ- 01	for 8 marks
Q. – 3	BAQ- 02	for 8 marks
Q. – 4	SAQ- 03 out of 04	for 09 marks

Section - C

Q. - 5	LAQ- 01	for 08 marks
Q. - 6	BAQ- 01	for 04 marks
Q. – 7	SAQ- 03 out of 4	for 09 marks

The full time for section B plus section C shall be of 2½ hrs. of Paper I and 2½ hrs for Paper II. MCQ Section will be given to candidates first. After 30 minutes the Section B & C will be given to the candidates.

NATURE OF THEROY QUESTION PAPERS:

PATTERN AT PRACTICAL EXAMINATION

	Marks
Orals (Viva)	10
Practical	30

The distribution of 30 marks of practical shall be -

1)	Spots	-	10 Marks	(5 spots of 2 marks each) Time 10 min.
2)	Exercises	-	10 Marks	(5 marks for Bio-Stat. & 5 marks for Epidemiological exercises) Time 10 min.
3)	Clinical case Presentation	-	10 Marks	Time 45 min.
		Total	30 Marks	

It is compulsory to obtain 50% marks in theory.

It is mandatory to obtain 50% marks in theory + viva/oral.

MBBS (UG)/ENT

Programme Name: - M.B.B.S. **Code Number: - 1101**
Course Name: - (ENT) **Course Code:-1101-32**

1. GOAL

The basic idea of undergraduate students teaching and training in otolaryngology is that he /she should have acquired adequate knowledge and skills for optimally dealing with common disorders, emergencies in E.N.T .and basic principles of impaired hearing rehabilitation.

2. OBJECTIVES

(A) KNOWLEDGE

At the end of course the student shall be able to:

(1) Describe the basic Pathophysiology and common Ear, Nose, Throat diseases and emergencies.

(2) Adopt the rationale use of commonly used drugs, keeping in mind their side effects

(3) Suggest common investigative methods and their interpretation.

(B) SKILLS

At the end of course, the student shall be able to:

1. Examine and diagnose common ear, nose, throat problems including premalignant and malignant diseases of head and neck.
2. Manage ear, nose, throat (E.N.T) problems at the first level of care and be able to refer whenever and wherever necessary.
3. Be able to use auroscope, nasal speculum, tongue depressor, tunning fork and head mirror.
4. Assist in certain procedures like tracheostomy, endoscopies
5. Conduct CPR (cardiopulmonary resuscitation).
6. Assist/do independently basic E.N.T. procedures like ear syringing, Ear dressings, nasal packing removal of foreign bodies from nose, ear, throat.

New competency skills in the syllabus viz.

- Performing CPR in emergency
- Establishment and maintenance of the Airway
- Ear syringing in retrieval of F.B. of EAM
- Performing of anterior and post nasal packing in Epistaxis emergency

INTEGRATION

The undergraduate training in E.N.T. will provide an integrated approach towards other disciplines especially neurosciences, ophthalmology and general surgery.

LEARNING METHODS

1. Total teaching hours : 70
2. Theory lectures : 48 (4th, 6th, 7th term.)
3. Tutorials : 22 (7th term)
4. Clinical Postings Two clinical postings of 4 weeks

First in 4th semester and second in 6th semester

- OMP during both clinical postings
- Introduction to PBL module during second clinical posting
- Bedside clinics – 8 weeks of three hours per day 144 hours
- Journal writing compulsory at the end of UG clinical postings.
- Course distribution and Teaching Programme
- This is suggested programme and can vary at institute
- Total 70 hours of teaching has to be done in ENT including Tutorials

Details of syllabus is given separately below after distribution as per semester

Theory lectures will be taken once a week and their distribution will be as below:

1. 4th term: 16 (nose and Paranasal sinuses/throat)
a. NOSE AND P.N.S.: 10
b. THROAT AND NECK: 6
2. 6th term: 16 (Remaining topics of throat, head and neck and / ear)
a. THROAT AND NECK: 8
b. EAR: 8
3. 7^{th} term: 16
a. RECENT ADVANCES AND OTHERS: 4
b. EAR 12

Total Theory lectures 48

Tutorials 7th Term 22 hours teaching

THEORY LECTURES: 4th, 6th, 7th term (one hour per week)

Topics	**No. of lectures**
Throat	
• Anatomy/physiology	1
• Diseases of buccal cavity	1
• Diseases of pharynx	2
• Tonsils and adenoids- Infections of tonsil-types, complications and management.	

Methods of tonsillectomy- Cold steel,
Hot and coblation- complications and
their management 2

- Pharyngeal tumours and related
  Topics (trismus, Plummer .Vinson Syndrome etc.) 1
- Anatomy /physiology/examination
  Methods/symptomatology of larynx 2
- Stridor /tracheostomy 2
- Laryngitis /laryngeal trauma/
  Laryngeal paralysis/ foreign body larynx/
  Bronchus, etc. 2
- Laryngeal tumours 1

Nose and paranasal sinuses

- Anatomy /physiology/ exam. 2
- Methods /symptomatology 1
- Diseases of ext. Nose/cong. Conditions 1
- Trauma to nose/p.n.s/Foreign Body. / Rhinolith 1
- Epistaxis 1
- Diseases of nasal septum 1
- Rhinitis 1
- Nasal polyps/nasal allergy 1
- Sinusitis and its complications 1
- Tumours of nose and Para nasal sinuses 1
- Sleep apneoa 1

EAR

- Anatomy /physiology 2
- Methods/methods of examination 1
- Cong.diseases/ ext.ear /middle ear 1
- Acute/chronic supp. otitis media
  Aetiology, clinical features and its
  Management/complications 6
- Serous/adhesive otitis media 1
- Mastoid/middle ear surgery 1
- Otosclerosis/tumours of ear 2
- Facial paralysis/Meniere's disease 2
- Tinnitus /ototoxicity 2
- Deafness/hearing aids/rehabilitation,
  Audiometry and early detection of neonatal deafness and role of cochlear stimulation (CI/HA) 2

Introduction of new topics in UG syllabus- sleep apneoa syndrome and early detection of neonatal deafness and role of cochlear stimulation (Cochlear Implant /Hearing Aid)

FINAL MBBS EXAMINATION IN OTORHINOLARYNGOLOGY

Evaluation

Internal assessment: 20 (Theory 10 +Practical 10)

- Marks of Internal Assessment should be sent to University before the commencement of theory examination.
- Passing in internal assessment is essential for passing, as internal assessment is separate head of passing in examination.
- It will also be considered for grace marks as per existing rules
- Combined theory and practical of internal assessment will be considered for passing in internal assessment.
- Student will be allowed to appear for both theory and practical exam independent of marks obtained in internal assessment but he if fails in that head even after including the grace marks he will be declared **"Fail"** in that Subject.

Internal assessment in Theory

1. Examinations during semesters: This will be carried out by conducting two theory examinations during 4th and 6th semesters (50 marks each). Total of 100 marks to be converted into 5 marks. (A/5)
2. Prelim examination: This shall be carried out during 7th semester. One theory paper of 40 marks as per university examination. Total of 40 marks to be converted into 5 marks. (B/5)
3. Total marks of internal assessment- Theory will be addition of A and B.

Internal assessment in Practical

Examinations at end of Clinical postings:

There will be practical examination at the end of each clinical posting of ENT (4th and 6th semester) each examination will be of 50 marks. The students will be evaluated using one minute preceptor method of answering and evaluation.

Viva questions will be based on teaching used during PBL module.
Total of 2 examinations – 100 marks, will be converted to 5 marks.(C/5) Prelim examination:
This will be conducted for 4 0 marks as per university pattern and marks will be converted to 5 (D/5). Total marks of internal assessment-of Practical will be addition of C and D.

Methods - Theory, Practical and Viva

Pattern of theory examination including distribution of marks, questions and time.

1. There shall be one theory paper, carrying 40 marks
2. The paper will have two sections, A and B
3. The paper will be of 2.5 hours duration.
4. Section A will be MCQ in each paper. Section B will have to be written in separate Answer sheets.
5. MCQ section A will be given to candidates at the beginning of the examination. After 30 minutes Section A will be collected. Section B of paper will then be handed over to candidates.

THEORY: 40 marks Duration: Two and half hours (2.5) hours

Section A: 30 min. duration

1. Twenty four MCQs- 1/2 mark each : 12 marks
   Single based response
   MCQ will cover whole syllabus

Section B: 2 hours duration

1. LAQ- 1 (8 Marks) with no options : 16 marks
   (Will contain some preclinical/para-clinical aspects)
2. SAQ- 3 (4 Marks each) with one option : 12 marks
3. BAQ- 4 (2 Marks each) with one option : 8 marks

PRACTICAL : 40 marks

Clinical

1. One long case: 20 marks: 30 min. For examination and 10minutes for assessment
2. One short case: 10 marks: 15 min. for examination and 5 minutes for assessment
   Oral (viva voce): 10 marks: 10 min. duration

(Instruments, x-rays, specimens, audiograms)

- Marks of VIVA will be added to Theory marks
- It is compulsory to obtain 50% marks in theory.
- It is mandatory to obtain 50% marks in theory & viva/oral.

❖ **Recommended Books :**

1. Logan turner's diseases of nose, throat and ear.(11th edition)
2. Mohan bansal- diseases of ear, nose and throat(2nd edition)
3. P.L.Dhingra - Diseases of ear ,nose and throat and head and neck surgery.(7th edition)
4. Scott brown's otorhinolaryngology and head and neck (8th edition--volume1, 2, 3).
5. Mawson book of ear diseases.(6th edition)
6. Glasscock-Shaumbaugh's surgery of ear(6th edition)
7. Kirtane--endoscopic nasal surgery.

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Krishna Institute of Medical Sciences, Karad.

Programme Name: M. B. B. S.

Programme Code: 1101

Course Name: **Ophthalmology**

Course Code: 1101-33

Objectives:

During the course, the basic medical undergraduates should be able to:

1. Do complete ocular examination of anterior segment.
2. Know everything about cataract- examination, evaluation and surgical management.
3. Diagnose ocular emergencies.
4. Know about
   - National programme for control of blindness
   - Vision 2020
   - School Health services in Ophthalmology (Refractive error, squint and congenital anomalies.)
5. Do early and effective referral for ophthalmic services.
6. Know Eye Banking services, Keratoplasty and Eye donation awareness programme.
7. Know ocular manifestations of diabetes and hypertension.

Course Outcome:

At the end of the course, the basic Medical Undergraduate is able to

1. Know everything about cataract [evaluation, surgical management], National programme for control of Blindness, Vision 2020, School Health (Ophthalmic) services – Refractive errors, squint and congenital anomalies.
2. Diagnose ocular emergencies.
3. Diabetes awareness programme.
4. Rehabilitation of the blind (Low vision aids, Eye Banking and Keartoplasty).
5. Early and effective referral for ophthalmic services.

Introduction Anatomy & Physiology of the Eye

1. Common Disease of Eye.

A) Conjunctiva.

Symptomatic conditions Diseases:

- Hyperemia, Sub conjunctival Haemorrrhage.
- Classification of Conjunctivitis
- Mucopurulant Conjunctivitis

- Membranous Conjunctivitis, Spring Catarrh.
- Degenerations Pinguecula and Pterygium

B) Cornea

- Corneal Ulcers: Bacterial, Fungal, Viral, Hypopyon.
- Interstitial Keratitis.
- Keratoconus.
- Pannus
- Corneal Opacities.
- Keratoplasty

C) Sclera

- Episcleritis.
- Scleritis.
- Staphyloma.

D) Uvea

- Classification of Uveitis
- Gen. Etiology, Investigation and Principles , Management of Uveitis.
- Acute & Chronic Iridocyclitis.
- Panophthalmitis.
- End ophthalmitis.
- Choriditis.

E) Lens

Cataract

- Classification & surgical management of cataract.
- Including Preoperative Investigation.
- Anesthesia.
- Aphasia.
- IOL Implant

F) Glaucoma

- Aqueous Humor Dynamics.
- Tonometry.
- Factors controlling Normal I.O.P.
- Provocative Tests.
- Classifications of Glaucoma.
- Congenital Glaucoma.
- Angle closure Glaucoma.

- Open Angle Glaucoma.
- Secondary Glaucoma.

G) Vitreous

- Vitreous. Opacities.
- Vitreous. Haemorrhage.

H) Intraocular Tumours

- Retinoblastoma.
- Malignant Melanoma

I) Retina

- Retinopathies: Diabetic, Hypertensive, Toxemia of Pregnancy.
- Retinal Detachment.
- Retinitis Pigments, Retinoblastoma
- Didactic lecture added for Ocular manifestations of diabetes other than Diabetic Retinopathy.

J) Optic nerve

- Optic Neuritis.
- Papilloedema.
- Optic Atrophy.

K) Optics

- Principles: V.A. testing Retinoscopy, Ophthalmoscope.
- Ref. Errors.
- Refractive Keratoplasty.
- Contact lens, Spectacles
- Lecture by Optometric an on Spectacles, types of lenses, contact lens fitting (Number of lectures -2)

L) Orbit

- Proptosis – Etiology, Clinical Evaluation, Investigations & Principles of Management
- Endocrinal Exophthalmoses.
- Orbital Haemorrrhage.

M) Lids

- Inflammations of Glands.
- Blepharitis.
- Trichiasis, Entropion.
- Ectropion.
- Symblepharon.
- Ptosis.

N) Lacrimal System

- Wet Eye.
- Dry Eye
- Nasolacrimal Duct Obstruction
- Dacryocystitis

O) Ocular Mobility

- Extrinsic Muscles.
- Movements of Eye Ball.
- Squint: Gen. Etiology, Diagnosis and principles of Management.
- Paralytic and Non Paralytic Squint.
- Heterophoria.
- Diplopia.

P) Miscellaneous

- Color Blindness.
- Lasers in Ophthalmology – Principles.

Q) Ocular Trauma

- Blunt Trauma.
- Perforating Trauma
- Chemical Burns
- Sympathetic Ophthalmitis.

2) Principles of Management of Major Ophthalmic Emergencies:

- Acute Congestive Glaucoma.
- C. Ulcer.
- Intraocular Trauma.
- Chemical Burns.
- Sudden Loss of vision

- Acute Iridocyclitis.
- Secondary Glaucoma's.

3) Main Systemic Diseases Affecting the Eye

- Tuberculosis.
- Syphilis.
- Leprosy.
- Aids.
- Diabetes.
- Hypertension

4) Drugs

- Antibiotics
- Steroids.
- Glaucoma Drugs.
- Mydriatics.
- Visco elastics.
- Fluorescence.

5) Community Ophthalmology

- Blindness: Definition Causes & Magnitude
  N.P.C.B. – Integration of N.P.C.B. with other health
- Preventable Blindness.
- Eye care.
- Role of PHC's in Eye Camps.
- Eye Banking.

6) Nutritional: - Vit. A. Deficiency.

<u>Clinical Ophthalmology cases To Be Covered</u>

History taking & Eye examination

Assessment of visual function.

Conjunctiva

- Pterygium.
- Pinguecula
- Conjunctivitis.
- Sub Conj. Haemorrrhage.

Cornea

- Corneal Opacity.
- Corneal Ulcer.
- Corneal Abscess.
- Corneal Transplant

Sclera

- Scleritis, Episcleritis.
- Staphyloma.

Uvea

- Iridocyclitis.

Lens

- Cataract.
- Aphakia
- IOLs
- Complications
- Virtual Audio Visual learning by 2D videos of Cataract surgeries

Glaucoma

- Types, Signs, Symptoms & Management
- Virtual Audio Visual learning by 2D videos of Glaucoma surgeries

Lids

- Entropies
- Ectropion
- Ptosis.

Squint

Medico legal aspects of medical negligence in relation to ophthalmology.
With court cases decided on act of commission and act of omission (Number of lectures -2).
Newer modalities of investigations, instruments and treatment
(Number of lectures- 2)
Low vision aids and rehabilitation of blind (Number of lectures -1)
In view of vertical teaching which is to be introduced no of topics to be given less Weightage are:-

a. Embryology, Anatomy, Physiology of vision
   (Number of lectures from 5 to 3)
b. Orbit (Number of lectures from 4 to 2)
c. Neuro-ophthalmology (Number of lectures from 2 to 1)

Didactic lecture added for Lasers in Ophthalmology

Format of modify question paper of UG Examination

- **Multiple Choice Questions** **12 Marks**
  (24 Questions – ½ Mark Each)
  15 Questions – Must know
  7 Questions – Desirable to know
  2 Questions – Nice to know

- **Long Answer Questions** **8 Marks**
  (1 Question - 8 marks)
  1 Question – Must Know

- **Short Answer Questions** **12 Marks**
  Any 3 out of 4
  (3 Questions – 4 Marks Each)
  2 Questions - Must Know
  2 Questions – Nice to Know

- **Brief Answer Question** **8 Marks**
  Any 4 out of 5
  (4 Questions – 2 marks each)
  2 Questions – must know
  1 Questions – Desirable to Know
  1 Question – Nice to Know

  80% Level 1
  20% Level 2

BAQs were added which were not there before of 8 marks, 2 marks for each questions (any 4 out of 5).
Number of MCQs was changed from 28 to 24, half marks each of total 12 marks.