Bharati Vidyapeeth (Deemed to be University), Medical College, Sangli

Programme Outcomes

PG (MD/MS)

Name of the Programme: PG (MD/MS)

Programme Outcome

As per Medical Council of India Postgraduate Medical Education Regulations, 2000

The Program outcome of Postgraduate Medical Education (MD/MS) shall be-

To produce competent specialist and Medical teacher in their own specialization ,

- Who shall recognize the health needs of the community, and carry out professional obligations ethically and in keeping with the objectives of the national health policy
- Who shall have mastered most of the competencies, pertaining to the specialty, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system;
- Who shall be aware of the contemporary advances and developments in the discipline concerned;
- Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology;
- Who shall have acquired the basic skills in teaching of the medical and paramedical professionals; and
- Who shall possess the capability of working in a team to treat or educate the patient and the society about the local health needs or situations

At the end of the postgraduate training (MD/MS) in the discipline concerned the student shall be able to;

- Recognize the importance to the concerned specialty in the context of the health needs of the community and the national priorities in the health section.
- Practice the specialty concerned ethically and with the principles of primary health care.
- Demonstrate sufficient understanding of the basic sciences relevant to the concerned specialty.
- Identify social, economic, environmental, biological and emotional determinants of health in a given case, and take them into account while planning therapeutic, rehabilitative, preventive and primitive measure/strategies.
- Diagnose and manage majority of the conditions in the specialty concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
- Plan and advise measures for the prevention and rehabilitation of patients suffering from disease and disability related to the specialty.
- Demonstrate skills in documentation of individual case details as well as morbidity and mortality rate relevant to the assigned situation.
- Demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.

- Play the assigned role in the implementation of national health program, effectively and responsibly.
- Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.
- Develop skills as a self-directed learner, recognize continuing education needs; select and use appropriate learning resources.
- Demonstrate competence in basic concepts of research methodology and epidemiology, and be able to critically analyze relevant published research literature.
- Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.
- Develop skills in using help of other specialty services and experts for the benefit of the patient for curative, rehabilitative or prevention of complication purposes.

BHARATI VIDYAPETTH (DEEMED TO BE UNIVERSITY)
MEDICAL COLLEGE & HOSPITAL, SANGLI
DEPARTMENT OF GENERAL SURGERY

Date: 08/10/2020

According to the Post Graduate (CBME) guidelines the P.G. teaching course is divided into

1. Systemic Surgery.
2. Clinical cases & Symptom based approach to patient.
3. Maintaining Log book.
4. Dissertation.
5. Seminars, Journal clubs, Clinics, Mortality meets.
6. Rotation in superspecility departments.

At the end of the course, the post graduate students should be able to…

- **Clinical outcome**

1. Diagnose and appropriately manage common surgical ailments in a given situation and provide adequate preoperative and follow-up care of surgical patients.
2. Identify emergency situations calling for urgent or early surgical intervention and refer at the optimum time to the appropriate centers.
3. To be able to counsel and take appropriate informed consents of patients and relatives regarding need, implications and complications of surgery in the individual patient.
4. Provide emergency resuscitative measures in acute surgical situations including trauma.
5. Organize and conduct relief measures in situations of mass disaster including triage.
6. Effectively participate in the National Health Programs especially in the Family Welfare Programs.
7. Discharge effectively medico-legal and ethical responsibilities and practice his specialty ethically.
8. Must learn to minimize medical errors.
9. Must update knowledge in recent advances and newer techniques in the management of the patients.
10. Must learn to obtain informed consent prior to performance of operative procedure.

11. Perform surgical audit on a regular basis and mention records (manual and/or electronic) for life.
12. Participate regularly in departmental academic activities by presenting Seminar, Case discussion, Journal club and Topic discussion on weekly basis and maintain logbook.
13. Demonstrate sufficient understanding of basic sciences related to his specialty.

- **Research:**

The student should:

1. Know the basic concepts of research methodology and plan a research project and know how to consult library and search for topics using various modalities and should have basic knowledge of statistics.

- **Teaching:**

The student should learn the basic methodology of teaching and develop competence in teaching medical/paramedical students.

- **Professionalism:**

1. The student will show integrity, accountability, respect, compassion and dedicated patient care. The student will demonstrate a commitment to excellence and continuous professional development.
2. The student should demonstrate a commitment to ethical principles relating to providing patient care, confidentiality of patient information and informed consent.
3. The student should show sensitivity and responsiveness to patients, culture, age gender and disabilities.

He should also be able to perform the operative and perioperative management of routine surgical cases and have an exposure to basic superspecility procedures.

Bharati Vidyapeeth University Medical College, Sangli.

DEPARTMENT OF DERMATOLOGY, VENEREOLOGY & LEPROSY

M.D. (Dermatology, Venereology & Leprosy)

COMPETENCY BASED POSTGRADUTE TRAINING PROGRAMME FOR MD IN DERMATOLOGY, VEMEREOLOGY & LEPROSY

Preamble: -

The purpose of PG education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

A post graduate specialist having undergone the required training should be able to recognize the health needs of community, should be competent to handle effectively the medical problems and aware of recent advance pertaining to the discipline. The PG Student should acquire basic skills in teaching medical/para-medical students. The students should be able to counsel patients and relatives in infectious diseases like HIV/AIDS, STD's cutaneous tuberculosis leprosy and event of serious illness or death.

The purpose of this document is to provide teachers and learners illustrative guidelines to achieve defined outcomes through learning and assessment. This document was prepared by various subject-content specialists. The Reconciliation Board of Academic Committee has attempted to render uniformity without compromise to purpose and content of the document. Compromise in purity of syntax has been made in order to preserve the purpose and content. This has necessitated retention of "domains of learning" under the heading "competencies."

SUBJECT SPECIFIC OBJECTIVES

At the end of 3 years of Post Graduate Training in Dermatology, Venereology & Leprosy:

- Student should have knowledge of basic sciences (Anatomy, Physiology, Biochemistry, Microbiology, Pathology and Pharmacology) as applied to dermatology. The student should acquire in-depth knowledge of his subject including recent advances. The student be fully conversant with the beside procedures (diagnostic and therapeutic) and having knowledge of latest diagnostics and therapeutics available.
- Student should have acquired practical and procedural skills related to the subject.
- Critically evaluate, initiate investigation and clinically manage cases in Dermatology, Venereology and Leprosy with the help of relevant investigations.
- Should plan and advise measures for the prevention and rehabilitation of patients with various dermatological conditions.
- Able to ensure the implementation of National Health Programme, particularly in Sexually Transmitted Diseases (STD) and Leprosy.
- Acquire training skills in research methodology, professionalism, attitude and communication skills, as below:
    - Student must know basic concepts of research methodology, plan a research project, consult library and resources, has basic knowledge of statistics can evaluate published studies.
    - Should be able to practice the specialty of dermatology ethically.
    - Recognize the health needs of patients and carry out professional obligations in keeping with principles of National Health Policy and Professional Ethics.
    - Teaching skills in the subject.
        - Student should learn the basic methodology of teaching and develop competence in teaching medical/paramedical students.
    - Should have acquired Problem Solving Skills.

SUBJECT SPECIFIC COMPETENCIES

By the end of the course, the students have acquired knowledge (cognitive domain), professionalism (affective domain) and skills (psychomotor domain) as given below:

A. Cognitive domain

At the end of the course, the student should have acquired following theoretical competencies:

- Describe structure, functions and development of human skin.
- Describe ultra structural aspects of epidermis, epidermal appendages, dermo-epidermal junction, dermis, and sub-cutis.
- Describe basic pathologic patterns and reactions of skin.
- Demonstrate the knowledge of common laboratory stains and procedures used in the histopathologic diagnosis of skin diseases and special techniques such as immunofluorescence, immuneoperoxidase and other related techniques.
- Describe the basics of cutaneous bacteriology, mycology, virology, parasitology and host resistance.
- Describe papulosqamous and vesicuiobullous disorders.
- Describe disorders of epidermal appendages and related disorders.
- Describe inflammatory and neoplastic disorders of dermis.
- Describe skin lesions in nutritional, metabolic and heritable disorders.
- Describe pharmacokinetics and principles of topical and systemic therapy.
- Describe drug reaction, its diagnosis and management.
- Describe cutaneous manifestations of systemic disorders.
- Describe anatomy of male and female genitalia, epidemiological transmission, clinical aspects and management of STDs and HIV.
- Describe clinical features, reactions, treatment and rehabilitation in leprosy.
- Describe etiology, pathophysiology, principles of diagnosis and management of common problems in dermatology including emergencies in adults and children.
- Describe indications and methods for fluid and electrolyte replacement therapy including blood transfusion in dermatological conditions.

- Describe common dermatological malignancies in the country and their management including prevention.
- Should be expert in evaluation of ECG, Chest X-ray (CXR), biochemical, hematology and immunology reports related to dermatology.
- Acquire knowledge of common laboratory stains and proce- dures used in the histopathology diagnosis of skin diseases and special techniques such as immune-fluorescence, immune-peroxides and other related techniques.
- Acquire knowledge of the basics of laser operation and precaution which needs to be taken.
- Demonstrate competence in basic concepts of research methodology and interpretation of data in medical literature/ publications.
- Skilled as a self-directed learner, recognize continuing educational needs; use appropriate learning resources and critically analyze relevant published literature in order to practice evidence-based dermatology;
- Should also have a broad idea how to approach an uncommon dermatological disease.

B. Affective Domain

At the end of the course, the student should have acquired the following attitudinal competencies:

- Demonstrate self-awareness and personal development in routine conduct.
- **Behavior and Emotional Stability:** Dependable, disciplined, dedicated, stable in emergency situations and shows positive approach.
- **Motivation and Initiative:** Is innovative, enterprising, does not shirk duties or leave any work pending and motivates team members.
- **Honesty and Integrity:** Is truthful, admits mistakes dose not cook up information, has ethical conduct and exhibits good moral values.
- **Interpersonal Skills and Leadership Quality:** Has compassionate attitude towards patients and attendants, gets on well with colleagues and paramedical staff is respectful to seniors, has good communication skills.

- Should be able to maintain confidentiality with regards to history, physical examination and management of patients.
- Indentify social, economic, environmental, biological and emotional determinants of patients, and institute diagnostic, therapeutic, rehabilitative, preventive and promotive measures to provide holistic care to patients at individual and community level against skin, venereal disease and leprosy.
- Recognize the emotional and behavioral characteristics of patients and keep these fundamental attributes in focus while dealing with them.
- Demonstrate empathy and humane approach towards patients and their families and respect their sensibilities.
- Demonstrate communication skills of a high order in explaining management and prognosis, providing counseling and giving health education messages to patients, families and communities.
- Organize and supervise the desired managerial and leadership skills.
- Should be able to function as part of a team, develop an attitude of cooperation with colleagues and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
- Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.

C. Psychomotor Domain

A Student at the end of training of 3 years of MD programme must acquire the following practical skills:

- General medical skills as learnt in MBBS to maintained:
  - Should be able to provide basic life support (BLS).
  - Should be expert in blood pressure measurement, intravenous access, blood sampling, fluid electrolytes therapy, pleural and cerebrospinal: fluid (CSF) fluid examination.
  - Should be able to provide basic and advance life-saving support services in emergency situations.

- Should be able to undertake complete monitoring of the patient and identify social, economic, environmental and emotional determinants in a given case and take them into account for planning therapeutic measures.
- Recognize conditions that may be outside the area of his specialty / competence and refer them to the proper specialist.

Dermatology, Venereology and Leprosy, HIV/AIDS Skills.

The student should:

- Acquire skills in history taking, physical examination, diagnosis and management of patients in Dermatology, Venereology and Leprosy.
- Be able to identify, classify and differentiate cutaneous findings in dermatological terms in a systematic way.
- Be able to perform systemic examination (chest, cardiac, abdomen, neurological, genitals, oral, eye and gynaecological examination) relevant to dermatologic condition.
- Be competent to manage dermatologic emergencies like angioedema, toxic epidermal necrolysis (TEN), Stevens-Johnson syndrome (SJS), and Pemphigus, Drug Reaction and Necrotic erythema nodosum leprosum (ENL).
- Be able to plan and deliver comprehensive treatment for diseases using principles of rational drug therapy.
- Be able to plan and advice measures for the prevention of infectious disease.
- Be able to plan rehabilitation of patient suffering from chronic illness and disability and those with special needs like leprosy.
- Demonstrate skills in documentation of case details and of morbidity/ mortality data relevant to the assigned situation.

Laboratory Skills

The Student:

- Should be able to perform common laboratory procedures like potassium hydroxide (KOH) mount, Gram stain, Giemsa Stain, Acid fast bacilli (AFB) stain, Woods lamp examination, stains, culture media etc. related to the cutaneous diagnosis independently.
- Should be able to order relevant investigations and interpret them to reach to a diagnosis.

- Should be familiar with order recent investigations.

Dermatopathology-Student should be competent enough to:

- To interpret histopathology of common skin diseases.
- To diagnosis common skin diseases by examining slides under microscope.

Surgery in dermatology

At the end of training following skills should be performed independently by the student:

1. Should able to given incision, take stitches and sutures.
2. Should be trained in taking skin biopsy and nail biopsy.
3. Should be able to perform chemical peels, manual dermabrasion, and skin punch grafting and wound dressing independently.
4. Should be able to perform cryosurgery, nail surgery and acne surgery.
5. Able to perform chemical cauterization, Cryotherapy, Patch and Photo Patch test, Slit smears and Tissue smears.

Venereology

1. Should be competent in the clinical approach to the patient of STDs and HIV/AIDS.
2. Should be able to interpret the histo pathological diagnosis including laboratory aids related with Venereology.
3. Able to perform dark ground illumination, gram stain, Bubo aspiration and tissue smear.
4. Able to manage the patient according to Syndromic approach for treatment of STDs.

Leprosy

The Student should be:

1. Able to diagnosis and approach the case of leprosy.
2. Perform AFB smear.
3. Able to manage cases of lepra reaction.
4. Indentify, judge and decide when to refer the patients at appropriate level for surgery or rehabilitation. Should able to manage pediatric cases with skin diseases.

Department of Dermatology, Venereology & Leprosy

P.G. Teaching Programme

The Dept of DVL is a single unit with daily OPD and IPD rounds. The students assist the senior staff and get 'hands on" training in clinical management and various dermatologic procedures including dermatopathology, dermatosurgery and Skin Laser surgery. Following is the proposed didactic teaching programme.

1. Monday : Journal Reading & discussion.
2. Tuesday : Histopathology slides discussion.
3. Wednesday : Seminar.
4. Thursday : Case Presentation, Once in month.
5. Friday : Procedure Discussion.
6. Saturday : Spot & Short case Discussion.

- Students maintain daily records of cases seen, managed on outdoor as well as indoor basis, procedures done, seminars, journal club, lectures, topic discussions participation as well as attendance checked monthly by the teachers.
- To develop General Medicine & Surgical Skills students are given Rotational postings in Medicine, Surgery & Paediatric departments in Secondary year of Post graduate course.
- Cognitive Domain is developed by taking theory lectures by faculty, Students doing Seminars & Group discussion.
- Affective Domain is developed by Post Graduate Student by observing & doing Indoor work, dealing with patients in Out door work in presence of Faculty.

- Psychomotor skills are developed by allowing Post Graduate students to first observe the skill, then assist the skill & finally perform it individually in presence of Senior. Cognitive part of skill is covered in Procedure discussion in seminars.

- Theory & Practical Examination and the Students' feedback at end of each semester as regards topic selection, method of teaching, material provided, teaching abilities and other suggestions pertaining to the teaching.

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DEPARTMENT OF E.N.T

Programme outcomes defined in Post Graduate curriculum as per competency based learning

SUBJECT SPECIFIC LEARNING OBJECTIVES

1. Theoretical knowledge:

A student should have fair knowledge of basic sciences (Anatomy, Physiology, Biochemistry, Microbiology, Pathology and Pharmacology) as applied to ENT and able to integrate such knowledge in his clinical practice. She/he should acquire in-depth knowledge of his subject including recent advances. She/he should be fully conversant with the bedside procedures (diagnostic and therapeutic) and having knowledge of latest diagnostics and therapeutics available.

2. Clinical / Practical skills

A student should be adept at good history taking, physical examination, providing basic life support and advanced cardiac life support, common procedures like FNAC, Biopsy, aspiration from serous cavities, lumbar puncture etc. She/he should be able to choose the required investigations to enhance the attitude, communication skills, including dealing with patients relatives with the required empathy, adapt to changing trends in education, learning methods and evolving new diagnostic and therapeutic techniques in the subject of ENT.

3. Research:

She/He should know the basic concepts of research methodology, plan a research project, plan and write a thesis and should know how to use library facilities. Basic knowledge of statistics is also required. Knowledge about use of internet resources is required.

4. Teaching:

The student should learn the basic methodology of teaching and assessment and develop competence in teaching medical/paramedical students and their assessment.

SUBJECT SPECIFIC COMPETENCIES

A. Cognitive Domain

At the end of training, the student should be able to demonstrate ability to practically apply knowledge gained during training period. This would include the following:

Basic sciences related to Otolaryngology

- Physiology- Mechanism of perception of smell and taste, mechanism of breathing and voice production, lacrimation, deglutition and salivation. Functional tests of the nose and the Paranasal sinuses, mechanism of cough and sneezing.
- Physics of sound, theories of hearing, mechanism of perception of sound and speech production, physiology of equilibrium and cerebral function. Physiology of brain in connection with hearing, speech, smell and phonation. Audiologic tests like Audiometry, impedance, evoked potentials, OAE, Speech audiometry.
- Physiology of larynx, tracheobronchial tree and oesophagus – Histology of mucous membranes, internal ear and other associated organs and structures, nose, PNS, NPx, Larynx, Tracheo-Bronchial tree, Lymphoepithetical system. Mechanism of immune system/immunology and genetics.
- Anatomy-Embryogenesis of ear, nose and throat including palate and the larynx, Oesophagus, trachea and lungs, tongue, salivary gland, Head and Neck and skull base etc.
- Parapharyngeal spaces in the neck including connective tissue barriers of larynx,
- Applied anatomy of the skull bones, accessory sinuses, external, middle and inner ears, nose, PNS, nasopharynx, meninges, brain, pharynx, larynx, trachea and bronchi, lungs, pleurae, oesophagus and the mediastinum
- Anatomy of all cranial nerves and their functions.

Principles and practices of otolaryngology, Audiology and Speech Pathology

- Clinical methodology as applied to ORL HN diseases in adult and children and the accessory sinuses, diagnosis and surgical treatment of diseases of nose, throat and ear in adult and children. Prevention and treatment, infectious diseases of Otolaryngology and Head Neck region. Circulatory and nervous disturbances of the nose, throat and ear and

their effects on other organs of the body. Deformities, injuries sinus infections, polyps and the tumors of the nose, and Paranasal sinuses.

- Examination of the ear, deafness and allied diseases, complications of diseases of the ear. Injuries, tumors, nervous and circulatory neurological disturbances of the ear. Diagnosis and treatment of tinnitus and vertigo. Diagnosis and rehabilitation of the Hearing handicapped including, dispensing of hearing and other vibrotactile aids.
    - Surgical pathology of Otolaryngology and Head Neck region.
    - Basic knowledge of anaesthesia as related to ENT.
    - Examination of diseases of children (Paediatric ORL) in connection with throat and larynx. Neurological and vascular disturbances. Congenital and neonatal stridor.
    - Pathology of various diseases of the larynx and throat, tracheo-bronchial tree and their causative organisms.
    - Indications and various techniques of direct laryngoscopy, nasal endoscopy. Bronchoscopy and oesophagoscopy, including microlaryngoscopic procedures.
    - Reading of radiograms, scans, audiograms, nystagmograms and tympanograms in connection with ENT diseases/disorders.
    - Special apparatus for the diagnosis and treatment of the diseases of ear, nose and throat including audiometer, BERA, Speech analyser etc.

Recent advances in Otolaryngology and Head Neck surgery

- Recent developments in the diagnosis, pathogenesis and treatment of the ENT diseases
- The knowledge of the frontiers of the oto-laryngology and lateral skull base surgery
- Rhinoplasty, endoscopic sinus surgery, and anterior cranial fossa surgery
- Knowledge of LASERS and fibre optics
- Other methods of managing Hearing loss
- Implantable hearing aids cochlear implants
- Phonosurgery
- Etiology and managements of sleep apnoea/snoring
- Hypophysectomy and optic nerve decompressions
- Immunotherapy and modalities of the gene therapy
- Newer techniques for Radiotherapy including, use of gamma knife for treatment of Intracranial tumors and other malignancy

General Surgical Principles of Head-Neck Surgery

- General Surgery, Head and Neck oncology, and Medicine as applicable to the ENT disorders/diseases. Surgery of congenital deformities of nose, ear (Pinna) and trachea/oesophagus etc.

- Radiology, Imaging- computed tomography and magnetic resonance imaging, (MRI) and intervention radiology and angiography as related to ENT
- General Pathologic aspects such as wound healing and also pathology and Pathogenesis of ENT diseases, Pharmacology, molecular biology, genetics, cytology, Haematology, and immunology as applicable to otolaryngology
- General Principles of faciomaxillary traumatology and neck injury
- Plastic Surgery as applicable to Otolaryngology

B. Affective Domain

1. The student will show integrity, accountability, respect, compassion and dedicated patient care. The student will demonstrate a commitment to excellence and continuous professional development.
2. The student should demonstrate a commitment to ethical principles relating to providing patient care, confidentiality of patient information and informed consent.
3. The student should show sensitivity and responsiveness to patients' culture, age, gender and disabilities.
4. The student should be able to choose the required investigations to enhance the attitude, communicative skills, including dealing with patient's relatives with the required empathy, adapt to changing trends in education, learning methods and evolving new diagnostic and therapeutic techniques in the subject of ENT.

BHARATI VIDYAPEETH (DEEMED TO BE UNIVERSITY)
MEDICAL COLLEGE & HOSPITAL, SANGLI
DEPARTMENT OF OPHTHALMOLOGY.

Ref. No. B.V.(D.U)/M.C.H./Ophthal/ 31/2020-21 Date- 13/10/2020

Programme outcome defined in Post graduate curriculum as per competency based learning

Subject specific learning objectives.

The clinical post graduate student to have the qualities of a clinical specialist , a teacher and a researcher is the goal of post graduate programme .To achieve these qualities the PG should have inclination for getting the required competencies:

1) Theoretical knowledge - A student should have fair knowledge of basic science (anatomy ,physiology ,biochemistry ,microbiology ,pathology ,pharmacology) as applied to ophthalmology and able to integrate such knowledge in his clinical practice .She /he should acquire in- depth knowledge of his subject including recent advances .She /he should be fully conversant with the bedside procedures (diagnostic and therapeutic)and having knowledge of latest diagnostic and therapeutics available

2) Clinical /Practical skills -She /He should be able to choose the required investigation to enhance the attitude ,communication skills ,including dealing with patients relatives with required empathy ,adapt to changing trends in education ,learning methods and evolving new diagnostic and techniques in the subject of ophthalmology

3) Research - She /He should know the basic concepts of research methodology .plan a research project ,plan and write a thesis and should know how to use library facilities .Basic knowledge of statistics is also required.Knowledge about use of internet resources is required.

4) Teaching skills - The student learn the basic methodology of teaching and assessment and develop competence in teaching medical /paramedical students and their assessment.

SUBJECT SPECIFIC COMPETENCIES

A) Cognitive domain- At the end of training the student should be able to demonstrate ability to practically apply knowledge gained during training periods effectively . This would include the following :

Basic medical science related to ophthalmology –

1)Attain understanding of the structure and function of the eye and its parts in health and disease.

2)Attain understanding and application of knowledge of the structure and function of the parts of Central Nervous System and other parts of the body with influence or control on the structure and function of the eye .

3)Attain understanding of and develop competence in executing common general laboratory procedures employed in diagnosis and research in ophthalmology.

1) Clinical ophthalmology –

- Acquire scientific and rational approach to the diagnosis of ophthalmic cases presented .
- To manage and treat all types of ophthalmic cases .
- To competently handle and execute safely all routine surgical procedures on lens ,glaucoma ,lid , sac, adnexa ,retina ,and muscle anomalies.
- To competently handle all ophthalmic medical and surgical emergencies.
- To demonstrate the knowledge of the pharmacological aspects of drugs used in ophthalmic practice and drugs commonly used in general diseases affecting the eyes .

2) Refraction –

- Acquire competence in assessment of refractive errors and prescription of glasses for all types of refraction problems.
- Acquire basic knowledge of manufacture and fitting of glasses and competence of judging the accuracy and defects of the dispensed glasses

3) Ophthalmic super specialties –

Given an opportunity to work on a rotational basis in various special clinics of sub specialties of ophthalmology , if possible, the student should be able to:

- Examine, diagnose and demonstrate understanding of management of the problem of neuro ophthalmology and refer appropriate cases to neurology and neurosurgery .
- Examine, diagnose and demonstrate understanding of management of medical and surgical complicated problems in the field of lens, glaucoma ,cornea ,retina, pediatric ophthalmology , oculoplasty , uvea, genetic problems in ophthalmology.
- To demonstrate understanding of the manufacture and competence in prescription and dispensing of contact lenses and ocular prosthesis.

4) **Ophthalmic pathological / microbiological /biochemical sciences** –

- Be able to interpret the diagnosis in correlation with the clinical data and routine materials received in such cases .

5) **Community ophthalmology** –

Eye camps may be conducted where the PG student are posted for imparting training to according to a set methodology .The community and school surveys may also be conducted by the post graduate students.

The post graduate students are given an opportunity to participate in surveys ,eye camps .They should be able guide rehabilitation workers in the organization and training of the blinds in art of daily living and in the vocational training of the blind leading to gainful employment.

6**) Research**-

- Recognize a research problem.
- State the objectives in terms of what is expected to be achieved in the end.
- Plan a rational approach with appropriate controls with full awareness of the statistical validity of the size of the material.
- Spell out the methodology and carry out most of the technical procedures required for the study.
- Accurately and objectively record on systematic lines results and observation made.
- Analyze the data with aid of an appropriate statistical analysis.
- Interpret the observations in the light of existing knowledge and highlight in what ways the study has advanced existing knowledge on the subject and what further remains to be done.
- Write a thesis in accordance with the prescribed instructions.
- Write at least one scientific paper as expected of International Standards from the material of this thesis.

B. Affective Domain-

1. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.

2. Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.

3. Develop communication skills to word reports and professional opinion as well as to interact with patients, relatives, peers and paramedical staff, and for effective teaching.

C) Psychomotor domain –

At the end of course, student should acquire the following clinical skills:

	Clinical /Theoretical	Surgical
First phase	Tonometry Visual acuity testing and Refraction Sac syringing A -scan Slit lamp Examination Direct ophthalmoscopy Retinoscopy Synaptophore	Blocks (Local Anaesthesia)
Second phase	Slit lamp 90D,78D Gonioscopy AS –OCT Applanation tonometry Perimetry IOL master Fundus photo	Assisting SICS Assisting Pterygium Assisting vitreal surgeries Assisting Cornea retrieval

Third phase	Specular microscopy Perimetry Corneal topography Indirect Ophthalmoscopy OCT –Fundus and Glaucoma	Independent SICS with Assisted Phacoemulsification Independent Pterygium Independent Intravitreal injections Assisting vitreal surgeries Assisting YAG-Capsulotomy