

**D.Y. PATIL EDUCATION SOCIETY**  
**[Deemed to be University], Kolhapur**  
Re-accredited by NAAC with 'A' Grade

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# LEARNING OUTCOMES AND GRADUATE ATTRIBUTES

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## **Outcome Based Education (OBE) Platform**

### **Institutional outcome:**

- Knowledge and Skills
- Planning and Problem-solving abilities
- Communication
- Research Aptitude
- Professionalism and Ethics
- Leadership





## **D. Y. Patil Medical College, Kolhapur**

### **Name of the Programme: MBBS**

#### **Graduate Attributes**

At the end of MBBS program, the Indian Medical Graduate should be able to:

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.
- To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.
- To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.
  - To demonstrate the ability to listen, clearly inform, communicate and educate patients
  - & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles
  - including a focus on population health.
- To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/ her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.
- To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.





- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.

To demonstrate self-motivation and awareness to their own limitations.

## **Learning Outcomes:**

### **Anatomy**

1. To attain comprehensive knowledge of the gross, microscopic structure of human organs and body parts and ability to demonstrate the knowledge of the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conception till birth. Students should be able to mark the topography of the living anatomy so that they should understand newer imaging techniques and interpretation of Computerized Tomography (CT) Scan, Sonogram etc
2. He/ She should be able to correlate with anatomical basis of disease presentation. To understand clinical basis of some common clinical procedures i.e., intramuscular & intravenous injection, lumbar puncture & kidney biopsy etc. and surgical procedures. He/ She should be able to explain the developmental basis of the occurrence of major variations, abnormalities and congenital anomalies. The student should recognize the critical stages of normal development and the effects of common teratogens, genetic mutations and environmental hazards on it.
3. To demonstrate personal characteristics and attitudes required for professional life including personal integrity, sense of responsibility and dependability and ability to demonstrate appropriate attitudes in adopting an empathic, holistic approach towards Cadaver.
4. To acquire proficiency to overcome language barriers, cultural barriers, Interpersonal barriers, barriers due to perception of communicated information and emotional barriers.
5. To identify the self- potential, functioning ability as a team leader, working as a team during dissection and practical.
6. To possess the attitude for continued self-learning and documentation skills to enhance personal and professional growth and learning as a life-long learner.
7. To demonstrate an attitude to be inquisitive to produce research questions on their observations leading to critical thinking and later with expertise to pursue research in any chosen area of medicine.





8. To demonstrate the knowledge of body and organ donation & Demonstrate accountability in fulfilling their duty for the benefit of the entire society
9. To demonstrate proper disposal of biological tissues without distributing the environment.

## **Physiology**

1. To demonstrate knowledge of functioning of major organ systems & its physiological basis, dysfunction of organ system in relation to disease process, appropriate diagnostic tests & it's correlation with the clinical presentation, therapeutic recommendations for preventive, curative, and palliative therapies, expansion of medical knowledge through research.
  2. To perform a full or focused physical examination on the subject in a logical sequence appropriate for the clinical problem directed from the clinical history.
  3. To demonstrate the knowledge of clinical signs
  4. To demonstrate respect, compassion, accountability and empathy when interacting with peers & other persons in surroundings.
  5. To demonstrate ability to display doctor-patient relationships demonstrating sensitivity and responsiveness to culture, race/ethnicity, age, socioeconomic status, gender, sexual orientation, spirituality, disabilities, and other aspects of diversity.
  6. To demonstrate ability to behave ethically while interacting with the peers & other persons in the surroundings.
  7. To demonstrate ability to utilize communication strategies involving nonverbal, verbal and written modalities in an organized and clear manner in order to communicate, create rapport, effectively communicate & share relevant information with peers & other persons in the surroundings.
  8. To demonstrate the ability to work effectively, efficiently & in rational way with his/ her colleagues and other team members.
  9. To educate & motivate the team members.
  10. To identify the self & others potential of functioning ability as a team leader to maximize the outputs.
  11. To demonstrates life-long learning skills needed to stay informed of relevant scientific findings.
  12. To demonstrate reflective practice through self-assessment, ability to analyze one's experiences, ability to identify limitations and areas for self-improvement and further education.
- To demonstrate self-corrective behavior, self-motivation, and ability to act on plans for self-improvement.
- To demonstrate ability to recognize triggers for stress and anxiety, to take care of mental health and wellbeing. Recognizes and identifies when to ask for help. Develops a personalized program for physical/mental health.





13. To demonstrate ability of information seeking strategies, curiosity, organizational skills, patience, trustworthiness, determination & persistence, open mindedness during his/her routine activities in the class & laboratories.
14. To demonstrate awareness of importance of research and development among themselves.
15. To demonstrate awareness to empower the researcher with self-confidence, critical thinking and Scientific communication skills. To develop solution-oriented attitude.
16. To demonstrate ability to verify and test important facts
17. To demonstrate ability to treat others with consideration, respect other person's point of view, accountable for one's own actions, resolve differences in constructive, nonviolent & peaceful ways, attitude of gratitude, cooperative, attending classes regularly & in time, completing assignments in time, participating in classroom activities. Maintaining good physical health.
- To demonstrates qualities as reliability, trustworthiness, dependability, altruism, and compassion.
18. To demonstrates responsibility to conserve natural resources (to protect air, water& soil) and protect global ecosystems to support health and wellbeing, awareness of limitations of natural resources & its judicious use for the sake of present & future generations.
19. To develop an understanding of living and physical environment and how to resolve challenging environmental issues affecting nature.
20. To develop the knowledge and skills required to address challenging environmental issues.
21. To demonstrate awareness and concern about the impact of environmental issues on health.
22. To demonstrate ability of combining didactic and experiential elements to significantly increase self-reported sense of preparedness to discuss environmental health issues, including climate change, with their peers.
23. To demonstrate ability of waste reduction, efficient use of energy & plastic free environment.

### **Biochemistry**

1. To demonstrate the knowledge of basic biochemical process and cycles in the human body and their correlation with pathophysiology of the disease and different clinical conditions and application of that knowledge to the simulated clinical scenario, this includes knowledge of evolving branches related to biochemistry like molecular biology, inborn errors of metabolism and cancer.
2. To demonstrate the knowledge of evidence-based methods of biochemical tests of body fluids, biochemical basis of the diseases and case appropriate choice of tests, interpretation and analysis of their results in case-based scenario in simulated condition.
3. To demonstrate the knowledge of biochemical basis of symptoms and disease condition.
4. To demonstrate the ability to maintain appropriate standards of professional responsibility and competencies in the departmental laboratory and hospital laboratory with responsible behavior towards infrastructural aspects. Demonstrate the knowledge of good laboratory practices and waste disposal.
5. To demonstrate ability to communicate effectively, respectfully, non-judgmental,





empathetic manner with colleagues and staff members that will encourage and improve communication skills.

6. To demonstrate the ability to work effectively, efficiently & in rational way with his/ her other team members, maintaining good interpersonal relationship & motivate the team members in a manner to maximize the potential of the team, considering various roles, responsibilities and competencies.
7. To demonstrate the ability to acquire new knowledge and skills to self-motivate and identify the necessary resources and apply andragogy principles of learning.
8. To demonstrate an ability to acquire knowledge to develop new scientific tools, concepts and theories.
9. To demonstrate an ability to participate in carefully designed, socially responsible activities in order to,
  - i) Practice and reinforce such qualities as reliability, trustworthiness, dependability, altruism and compassion.
  - ii) Partially reimburse society for the cost of their medical education.
10. To demonstrate environmental health in medical education, serve as a catalyst for preparing future physician to address issues as complex as climate change and health, water pollution & air pollution.
11. To demonstrate the knowledge of biomedical waste management.
12. To demonstrate awareness of inadequate management of waste produced in health care facilities which causes direct health hazard on the general public, the health care workers and on the environment.

### **Pharmacology**

1. Able to choose the appropriate, cost-effective drug or therapy and interpret these with clinical context to prescribe rationally.
2. To describe the pharmacokinetics and pharmacodynamics indications, contraindications, interactions and adverse reactions of essential and commonly used drugs
3. To explain pharmacological basis of prescribing drugs in special medical situations such as pregnancy, lactation, infancy and old age & integrate the list the drugs of addiction and recommend the management.
4. To explain the concept of rational drug therapy in clinical pharmacology.
5. to demonstrate ability to evaluate the ethics and modalities involved in the development and introduction of new drugs
6. to demonstrate communication with patient with empathy and ethics on aspects of drug use.
7. To motivate patient with chronic disease to adhere to the prescribed management by the health care provider.
8. To demonstrate how to interact with pharmaceutical representative to get authentic information of drug.
9. To explain to the patient, the relationship between cost of treatment and patient compliance.
10. To prepare and explain a list of p-drug for a given condition.





### **Pathology:**

1. To describe the structure and ultra-structure of a sick cell, the mechanisms of the cell degradation, cell death and repair.
2. To correlate structural and functional alterations in the sick cell.
3. To explain the Patho physiological processes which governs the maintenance of homeostasis, mechanism of their disturbances and the morphological and clinical manifestation associated with it.
4. To describe the mechanisms and patterns of tissue response to injury to appreciate the Pathophysiology of disease processes and their clinical manifestations.
5. To correlate the gross and microscopic alterations of different organ systems in common diseases to the extent needed to understand disease processes and their clinical significance.
6. To develop an understanding of neoplastic change in the body in order to appreciate need for early diagnosis and further management of neoplasia.
7. To understand mechanisms of common hematological disorders and develop a logical approach in their diagnosis and management.
8. To describe the rationale and principles of technical procedures of diagnostic laboratory tests.
9. To interpret diagnostic laboratory tests and correlate with clinical and morphological features of diseases.
10. To perform simple bedside tests on blood, urine and other biological fluid samples.
11. To communicate with patient, colleagues regarding utility of diagnostic tests and maintain confidentiality.

### **Microbiology**

1. To demonstrate ability to evaluate and estimate the various Microbiological parameters, analyze on the basis of choice of various lab diagnostic tests interpretation relevant to clinical case scenario.
2. To demonstrate knowledge about the micro-organisms causing different infections, lab diagnostic tests for detection / confirmation of different infections, immunology, Hospital Infection Control (HIC), antibiotic stewardship, antibiotic resistance, personal safety, OT sterility and BMW management.
3.
  - i) To demonstrate respect for patient sample, during collection and processing.
  - ii) To get knowledge regarding the professional attributes.
4. To demonstrate ability to utilize communication strategies involving nonverbal, verbal, written modalities in an organized and clear manner in order to communicate, create report and share relative information with clinicians.
5. To demonstrate the ability to work effectively, efficiently and rationally with colleagues and team members, educate and motivate the team members, identify the self and other potential functioning ability as a team leader to maximize the outputs (departmental small project)
6. To demonstrate lifelong learning skills (SDL) needed to stay informed new relevant scientific findings, new diseases, handling disasters and pandemic.





2) Demonstrate reflective practice through self-assessment ability to analyze one's experience. Ability to identify limitations and areas for self-improvement and further education. Ability to acquire new knowledge skills and reflect in log book.

### **Community Medicine**

1. Aware of the physical, social, nutritional, psychological, economic and environmental determinants of health and disease, and understand the principles of prevention and control of communicable and non-communicable diseases.
2. Aware of national & regional healthcare policies including National health mission that incorporates NRHM & NUHM and implementation of various National health programmes.
3. Able to think epidemiologically, diagnose totally, treat comprehensively, able to promote primordial and primary prevention in community through health care delivery system and be able to function as community and first contact physician.
4. Able to identify, prioritize and apply the clinical skills to recognize and manage common health problems including their physical, emotional, social aspects and occupational issues at the individual, family and community levels for making community diagnosis and understand the principles of prevention and control of communicable and non-communicable diseases
5. Able to understand population dynamics and participate actively in health care services for special groups like mothers, infants, under five children, school children, adolescents and elderly of rural, tribal and urban slum dwellers.
6. Able to participate actively in investigation of outbreaks/epidemics of various diseases and other public health emergencies/disasters and to inculcate the habit of considering the above aspects while rendering patient care.
7. Inculcate values like compassion, empathy to poor, rational and ethical practice, to ensure quality professional practice and able to develop the qualities of Good Medical Practitioner and able to enhance personal and professional excellence through continuous medical education.
8. Able to apply principles of behavioral change communication and counselling of the community for health promotion, disease prevention and healthy life style measures and to communicate empathetically with patient, relatives, families and colleagues through Community oriented medical education.
9. Able to perform as an effective leader of health team at primary health care level and develop organizational skills for better patient satisfaction through supervision, leadership, resource management, health information management, community participation and coordination and administrative functions etc. and participate actively in implementation of National Health Programs.
10. Able to continuously upgrade his/her knowledge, attitude & skills through active learning and research for betterment of community. Also, able to orient and apply the recent updates in Indian Health System, National Health Programmes and Policies and International Health Policies and Agencies.
11. Able to apply epidemiological studies to collect, analyze, interpret data, and apply relevant statistical tests with research principles and methodologies so as to create scientific attitude / report & skills through active learning and research for the betterment of community.





12. Able to responsibly assess the health needs of community/society, plan & participate actively to fulfil the felt health needs with designing cost effective health services & national programs for the benefit of the entire society.
13. Aware of environmental health determinants, natural resources and concept of reduction recycle, reusing the environmental resources to protect global ecosystems & environmental sustainability ultimately to support health and wellbeing of mankind.

### **Ophthalmology**

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

1. To explain the principles of sociology including demographic population dynamics.
2. To identify social factors related to health, disease and disability in the context of urban and rural societies.
3. To appreciate the impact urbanization on health and disease.
4. To observe and interpret the dynamic of community behaviours.
5. To describe the elements of normal psychology and social psychology.
6. To observe the principles of practice of medicine in hospital and community settings.
7. To describe the health care delivery systems including rehabilitation of the disabled in the country.
8. To describe the National Health programmes with particular emphasis on maternal and child health programmes family welfare planning and population control.
9. List the epidemiological methods and techniques.
10. Outline the demographic pattern of the country and appreciate the roles of the individuals, family, community and socio-cultural milieu in health and disease.
11. To describe the health information systems.
12. To enunciate the principles and components of primary health care and the national health policies to achieve the goal of "Health for all".
13. To identify the environmental and occupational hazards and their control.
14. To describe the importance of water and sanitation in human health.
15. To understand the principles of health economics, health administration health education relation to community.

### **Otorhinolaryngology (ENT)**

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

### **Forensic Medicine& Toxicology**

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

1. To identify the basic medico legal aspects of hospital and general practice.
2. To define the medico legal responsibilities of a general physician while rendering community service either in a rural primary health center or an urban health center.





3. To appreciate the physician's responsibilities in criminal matters and respect for the codes of medical ethics.
4. To diagnose, manage and identify also legal aspects of common acute and chronic poisonings.
5. To describe the medico legal aspects and findings of post-mortem examination in case of death due to common unnatural conditions & poisonings.
6. To detect occupational and environmental poisoning, prevention and epidemiology of common poisoning and their legal aspects particularly pertaining to Workmen's Compensation Act.
7. To describe the general principles of analytical toxicology.
8. Medical jurisprudence in view of the Consumer Protection Act – wherein doctors have been covered under its ambit. They have both rights as well as responsibilities. Under medical insurance acts of negligence covered as well as rights for effective service delivery.

### **General Medicine**

1. To describe clinical features of diseases of various etiology affecting all systems in the adult and geriatric population.
2. To apply the basic sciences knowledge in understanding and managing common diseases.
3. To describe the investigations to be undertaken at various levels like OPD, Ward, ICU etc. and choose them appropriately depending on the clinical features and epidemiologic principles.
4. To describe the pharmaco-therapeutics of various diseases and complications.
5. To describe and discuss the health issues related to environmental and ecological factors.
6. To describe and discuss the methods and mechanisms of rehabilitation following diseases.
7. To describe and discuss the issues related to palliative and terminal care.
8. To incorporate the national and international guidelines related to various diseases in day-to-day practice and teaching.
9. To describe and discuss the social and economic aspects of illnesses, outbreaks and epidemics.
10. To analyze the observations of disease patterns in patients and community and make suggestions for improvement in management and prevention.
11. To describe and discuss the National Health Programs.
12. To analyze and critique the publications related to various aspects of illnesses and evidence-based medicine.
13. To describe and discuss the various levels of prevention in communicable and non - communicable diseases.
14. To describe and discuss various legislations related to organ transplant, brain death, informed consent, human rights etc.
15. Be updated on recent advances in internal medicine.

### **General Surgery**

1. To describe and discuss etiology, anatomy, pathophysiology of common surgical problems.
2. To elaborate patient assessment and devise and differential diagnosis for common surgical problems.
3. To describe and discuss, operative and non-operative modalities of treatment & complications of common surgical problems.
4. To demonstrate basic technical skills such as dressing, suturing, catheterization and minor surgical procedures.
5. To interpret and co-relate radiological investigations to common surgical procedures.





6. To discuss clinic-pathological co-relation of common surgical problems.
7. To describe and discuss recent advances in surgery.
8. To demonstrate respect, compassion and empathy to patients and colleagues, displaying sensitivity to one's individual background throughout the course of the surgical settings including pre-operative, intra-operative, and post-operative.

### **Obstetrics & Gynaecology**

1. To diagnose normal and high-risk pregnancies and efficiently manage the normal pregnancy and the common conditions affecting it.
2. To provide appropriate treatment for reproductive tract infections, including sexually transmitted diseases.
3. To provide counselling and family welfare services including various methods of contraception and perform medical termination of pregnancy.
4. To interpret various laboratory investigations and other diagnostic modalities in Obstetrics and Gynecology and manage the patient accordingly.
5. To perform basic and advanced surgical skills for obstetrical and gynecological surgeries. Also perform basic obstetrical ultrasound including Doppler.
6. To diagnose and manage gynecological endocrinology conditions, infertility and screen gynecological malignancies and manage benign and malignant gynecological conditions.
7. To understand the principles of medico legal aspects in obstetrics and gynecology, which includes knowledge of MTP act, serialization and PCPNDT act.
8. To acquire full understanding of research methodologies and use of newer information technologies and keep abreast with advances in the field of Obstetrics & Gynecology.
9. To facilitate learning of medical / nursing students, para medical health workers as a teacher trainer.
10. To demonstrate empathy and humane approach towards patients and their families also have good communication with patient and their families, colleagues, senior authorities and other paramedical healthcare providers.

### **Paediatrics**

1. Describe the normal growth and development during fetal life, neonatal period, childhood and adolescence and outline deviations thereof; state age related requirements of calories, nutrients, fluids, drugs etc. in health and disease. Provide necessary knowledge regarding this to parents.
2. Describe the common pediatric emergencies in terms of epidemiology, etiopathogenesis, clinical manifestations, diagnosis, rational therapy, holistic care including counselling the parents and child rehabilitation.
3. Describe preventive strategies for common infectious disorders, malnutrition, genetic and metabolic disorders, poisonings, accidents, child abuse, protection and right of children. outline national programmes relating to child health including immunization programmes.
4. Present and discuss detailed pediatric history, conduct an appropriate physical examination of children including neonates, make clinical diagnosis, conduct common bedside investigative procedures, interpret common laboratory investigation results and plan and institute therapy.





5. Demonstrate anthropometric measurements, resuscitate newborn infants at birth, prepare oral rehydration solution, perform tuberculin test, administer vaccines available under current national programs. Knows and shows how to perform lumbar puncture, liver and kidney biopsy, bone marrow aspiration, pleural tap and ascitic tap start an intravenous saline and provide nasogastric feeding.
6. Discuss and describe normal newborn babies and those requiring special care and institute early care to all new born babies including care of preterm and low birth weight babies, provide correct guidance and support parents and provide counselling in breast feeding.
7. Describe and discuss preventive, promotive, curative and rehabilitative services to children, and keep himself updated with recent developments regarding same.

### **Programme: MD Dermatology, Venereology & Leprosy Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.
- ❖ To demonstrate ability to apply this knowledge to the practice of medicine in routine emergency and disaster situations.
- ❖ To demonstrate ability to appraise and assimilate scientific evidence into their ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patient's differences, values, and preferences.
- ❖ To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.
- ❖ To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/ her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.





- ❖ To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.
- ❖ To demonstrate self-motivation and awareness to their own limitations.

## **Learning Outcome**

**At the end of the course, student should be able to**

1. To discuss Basic Sciences I.e. Anatomy, Physiology, Biochemistry, Pathology and Microbiology in relation to Dermatology, STD and Leprosy.
2. To describe etiopathogenesis, clinical features, diagnosis and treatment of common dermatological diseases/conditions.
3. To describe etiopathogenesis, clinical features, diagnosis and treatment of common sexually transmitted diseases (STDs) and leprosy.
4. To discuss etiology, pathogenesis, clinical features and treatment of various systemic diseases presenting with dermatological manifestations and interpret dermatological signs in relation to common systemic diseases, adverse drug reactions with special reference to dermatological manifestations.
5. To demonstrate/Assist in conducting simple bedside clinical tests and investigative procedures such as gram staining, KOH examination, tissue smear, Giemsa stained smear, slit skin smear for AFB, patch testing and skin biopsy.
6. To discuss principles and first aid treatment of major and minor dermatological emergencies.
7. To discuss skin care education for prevention of skin diseases, organizing community surveys for skin and leprosy checkup including school children screening, organizing primary skin care services through primary health centers, communicate with public and individual to motivate to report and take treatment for STDs and Leprosy.

## **Programme: MD General Medicine**

### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.
- ❖ To demonstrate ability to apply this knowledge to the practice of medicine in routine emergency and disaster situations.
- ❖ To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.





- ❖ To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.
- ❖ To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ Demonstrate the ability to work effectively, efficiently & in rational way with his/ her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.
- ❖ To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.
- ❖ To demonstrate self-motivation and awareness to their own limitations.

### **Learning Outcome**

1. To describe clinical features of diseases of various etiology affecting all systems in the adult and geriatric population.
2. To apply the basic sciences knowledge in understanding and managing common diseases.
3. To describe the investigations to be undertaken at various levels like OPD, Ward, ICU etc. and choose them appropriately depending on the clinical features and epidemiologic principles.
4. To describe the pharmaco-therapeutics of various diseases and complications.
5. To describe and discuss the health issues related to environmental and ecological factors.
6. To describe and discuss the methods and mechanisms of rehabilitation following diseases.
7. To describe and discuss the issues related to palliative and terminal care.





8. To incorporate the national and international guidelines related to various disease in day-today practice and teaching.
9. To describe and discuss the social and economic aspects of illnesses, outbreaks and epidemics.
10. To analyze the observations of disease patterns in patients and community and make suggestions for improvement in management and prevention.
11. To describe and discuss the National Health Programs.
12. To analyze and critique the publications related to various aspects of illnesses and evidence-based medicine.
13. To describe and discuss the various levels of prevention in communicable and non diseases.
14. To describe and discuss various legislations related to organ transplant, brain death, informed consent, human rights etc.
15. Be updated on recent advances in internal medicine.

## **Programme: MD Pathology**

### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.
- ❖ To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.
- ❖ To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.
- ❖ To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.
- ❖ To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a





manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.

- ❖ To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.

To demonstrate self-motivation and awareness to their own limitations.

### **Learning Outcome**

1. To comprehension of the causes, evolution and mechanism of diseases. Ability to correlate the natural history, structural and functional changes with the clinical manifestation of diseases, their diagnosis and therapy. Knowledge of recent advances and development.
2. To describe the basic pathological processes in terms of pathogenesis and morphological changes in tissues. Correlate the morphological alterations of different organ systems in non-neoplastic and neoplastic disorders to the extent needed to understand disease processes, their clinical significance, appreciate need for early diagnosis and further management of diseases. Develop skills in using educational methods and techniques as applicable to the teaching and sharing the knowledge and competence with others including peers, professional colleagues, team members and students
3. To understand mechanism of common hematological disorders and develop a logical approach in their diagnosis and management. Describe the rationale and principles of technical procedures of diagnostic laboratory tests. Interpret diagnostic laboratory tests and correlate with clinical and morphological features of diseases. Able to offer a high-quality diagnostic opinion in a given clinical situation with an appropriate and relevant sample of tissue, blood, body fluid, etc. for the purpose of diagnosis and overall well-being of the ill.
4. To demonstrate commitment towards the patient, colleagues, society and adhere to universally accepted code of ethics. Respect and maintain professional boundaries between patients', colleagues and society. Capable of pursuing clinical and laboratory-based research. Demonstrate sufficient understanding of basic sciences relevant to pathology.
5. To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction in a simulated environment. Demonstrate ability to work in a team of peers and superiors. Demonstrate respect in relationship with fellow team members, superiors and other health care workers. Work with team spirit and for overall growth of the fraternity.
6. To demonstrate an ability to perform an objective self- assessment of knowledge and skills, continue learning, refine existing skills and acquire new skills. Demonstrate ability to search (including through electronic means), and critically evaluate medical literature and apply the information in the diagnosis of the disease and patient care. Describe and discuss the





commitment to lifelong learning as an important part of professional growth. Be scientifically inquisitive, develop quest for search and research and be a lifelong learner.

## **Programme: MD Radio-Diagnosis**

### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.
- ❖ To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.
- ❖ To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.
- ❖ To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.
- ❖ To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.
- ❖ To identify the self-potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.
- ❖ To demonstrate self-motivation and awareness to their own limitations.





## **Learning Outcome**

1. To practice Radio diagnosis ethically & legally keeping in mind the requirement of patient, community and people at large.
2. To demonstrate sufficient understanding of basic sciences related to Radio diagnosis using mannequins in Simulation Skill Lab and be able to integrate such knowledge in his Clinical practice.
3. To acquire in-depth knowledge in the subject including recent advances to be competent in conducting & interpreting various diagnostic / interventional imaging studies.
4. To acquire and be able to demonstrate his / her skills in performing various diagnostic & therapeutic procedures under image guidance.
5. To demonstrate competence in basic concepts of research methodology and writing thesis, research papers and publications by undergoing BCBR course training by UGC.
6. To develop good learning - teaching skills as well as communication and counselling skills.

## **Programme: MD Paediatrics**

### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.  
To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.  
To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.  
To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.  
To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.





- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.

To identify the self-potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.

- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.

To demonstrate self-motivation and awareness to their own limitations.

### **Learning Outcome**

1. To learn the normal growth and development during fetal life, neonatal period, childhood and adolescence and identify deviations there of; state age related requirements of calories, nutrients, fluids, drugs etc. in health and disease.
2. To identify and manage the common pediatric emergencies and systemic diseases in children in terms of epidemiology, etiopathogenesis, clinical manifestations, diagnosis, rational therapy, holistic care including counseling the parents and child rehabilitation.
3. To know preventive strategies for common infectious disorders, malnutrition, genetic and metabolic disorders, poisonings, accidents, child abuse, protection and rights of children.
4. Outline national programs related to child health including immunization program.
5. Able to take detailed pediatric history, conduct an appropriate physical examination of children including neonates, make clinical diagnosis, conduct common bedside and invasive investigative procedures, interpret laboratory investigation results including genetic test, plan and institute therapy.
6. Able to take anthropometric measurements, interpret results. Resuscitate newborn infants at Birth (basic and advanced), knows how to prepare oral rehydration solution, and perform tuberculin test, nasogastric feeding, IV cannulation, administer vaccines, knows and shows how to perform lumbar puncture, liver and kidney biopsy, bone marrow aspiration, pleural tap, ascitic tap, ventricular tap, peritoneal dialysis, paediatric ventilation.
7. Normal newborn baby care and neonatal intensive care including care of sick term, preterm and low birth weight babies, provide correct guidance and support to parents and provide counseling in NICU. Perform procedures like IV-line, oxygen therapy, phototherapy, ICD insertion, PICC line, exchange transfusion, umbilical catheterization, surfactant administration and ventilation.
8. To describe and discuss social aspects of pediatrics, preventive, primitive, curative and rehabilitative services to children, and keep him updated with recent developments regarding same.





9. To update knowledge regarding recent advances and newer techniques in the management of patients.
10. To participate regularly in departmental academic activities by presenting seminars, case discussions, journal club and topic discussion on weekly basis and maintain logbook
11. To know the basic concept of research methodology, plan a research project and know how to consult library.
12. To demonstrate and practice procedural skills in simulated environment.
13. To show integrity accountability, respect, compassion and dedication in patient-care and demonstrate a commitment to excellence and continuous professional development.
14. To demonstrate sensitivity and responsiveness to patients' culture, age gender and disabilities and show commitment to ethical principles related to providing patient care and confidentiality of patient information.

## **Programme: MD Anaesthesiology**

### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.  
To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.  
To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.  
To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.  
To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.





To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.

- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.

To demonstrate self-motivation and awareness to their own limitations.

### **Learning Outcome**

1. Basic fundamentals about “Principles and practice” of Anesthesiology.
2. Pre-operative evaluation, preparation of the patient for anesthetic management of both elective and emergency surgical procedures.
3. To preparation of the anesthesia equipment, anesthesia machine, monitoring devices, Anesthetic and other essential drugs, all the required resuscitation and emergency equipment.
4. To expertise in gaining vascular access, peripheral large veins and central venous access.
5. To expertise in airway management, all the other invasive procedures of inducing anesthesia.
6. To managing smooth, safe and effective maintenance of Intra-Operative Anesthesia.
7. To monitoring vigilantly, anticipating, preventing and retreating common & uncommon side effects toxicities & complications of Anesthesia.

### **Programme: MD Psychiatry**

#### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.  
To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.  
To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.  
To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.  
To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.





- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.  
To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.  
To demonstrate self-motivation and awareness to their own limitations.

### **Learning Outcome**

1. To understand and explain neuroanatomy and neurophysiology of behavior.
2. To establish rapport with a patient/relative and open an effective communication channel.
3. To obtain psychiatric history from patient and his/her caregiver.
4. To identify and diagnose developmental disorders in children and adolescents.
5. To identify and diagnose common psychiatric diagnoses in adults.
6. To identify and diagnose neurodegenerative disorders in elderly.
7. To explain and educate the caregivers about the diagnosis, treatment plan and prognosis.
8. To form a treatment plan with the help of members of the healthcare team and ancillary staff.
9. Open a dialogue, and intervene early in an individual who is experiencing suicidal ideations.
10. Open a dialogue, and intervene early in an individual who is indulging in substance use disorders.

### **Programme: MS OBG. & GYN.**

#### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.  
To demonstrate ability to apply this knowledge to the practice of medicine in routine,





emergency and disaster situations.

To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.

- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.

To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.

To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.

- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.

- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.

- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.

- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.

To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.

- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.

To demonstrate self-motivation and awareness to their own limitations.

### **Learning Outcome**

1. To understand the basic sciences (Anatomy physiology biochemistry pathology) in relation to female reproductive system including normal and abnormal development of female reproductive system.
2. To provide effective and adequate care to the community in the diagnosis and management of antenatal intranatal and postnatal period of normal and complicated pregnancy and Labour.





3. To provide effective and adequate care to a normal and high-risk neonate including counselling for breast feeding and perform neonatal resuscitation.
4. To perform basic obstetrical ultrasound in normal and abnormal pregnancy including Doppler.
5. To understand the basic sciences (Anatomy physiology biochemistry pathology) in relation to female reproductive system including normal and abnormal development of female reproductive system.
6. To understand the principle of medical legal aspects in obstetrics and gynecology which includes knowledge of MTP act sterilization PCPNDT act and enumerate leading causes of maternal, perinatal morbidity and mortality and describe the national programme of maternal and child health and family welfare and their implementation.
7. To perform basic and advanced surgical skills for obstetrics and gynecology surgeries and understand their complications and their effective management as well as understand various newer treatment modalities in obstetrics and gynecology.
8. To provide counselling and family welfare services including various methods of contraception and perform medical termination of pregnancy (MTP).
9. To develop diagnosis for common gynecological conditions, perform complete physical examination with an emphasis on gynecologic examination and plan for management of such conditions.
10. To provide effective health care to the community in the diagnosis screening and management of all gynecological malignancies including pregnancy
11. To conduct complete evaluation of infertile couple and have a broad-based knowledge of assisted reproductive techniques including ovulation induction invitro fertilization and intracytoplasmic sperm injection gamete donation surrogacy and the legal and ethical implication of these procedures
12. To understand the pharmacology of drugs used during pregnancy and lactation and drugs like hormones antibiotics chemotherapeutic agents used in gynecological conditions
13. To acquire full understanding of research methodologies and use of newer information technologies and Keep abreast with advances in the field of Obstetrics & Gynecology.

## **Programme: MS Orthopaedics**

### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.  
To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.  
To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.  
To demonstrate the ability to listen, clearly inform, communicate and educate patients &/ caregivers for the promotion of health, diagnosis of disease and the treatment of





illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.

To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.

- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.

To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.

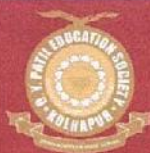
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.

To demonstrate self-motivation and awareness to their own limitations.

## **Learning Outcome**

1. To diagnose and appropriately manage common orthopedics ailments in the given situation
2. To provide, adequate o preoperative, perioperative, postoperative and follow-up care of orthopedics surgical patients
3. To provide and coordinate emergency resuscitative measures in trauma Patient.
4. To discharge effectively medico legal and ethical responsibilities and participate in the national health programs.
5. To learn to obtain inform consent prior to performance of operative procedures.
6. To learn the basic steps in techniques of performing an operative procedure.
7. To update knowledge regarding recent advances and newer techniques in the management of patients.
8. To participate regularly in departmental academic activities by presenting seminars, case discussions, journal club and topic discussion on weekly basis and maintain logbook.
9. To know the basic concept of research methodology, plan a research project and know how to consult library





10. To demonstrate and practice procedural skills in simulated environment.
11. To show integrity accountability, respect, compassion and dedication in patient-care and demonstrate a commitment to excellence and continuous professional development.
12. To demonstrate sensitivity and responsiveness to patients' culture, age gender and disabilities and show commitment to ethical principles related to providing patient care and confidentiality of patient information.

## **Programme: MS General Surgery**

### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.  
To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.  
To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.  
To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.  
To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.
- ❖ To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.
- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.





- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.

To demonstrate self-motivation and awareness to their own limitations.

### **Learning Outcome**

1. To diagnose and appropriately manage common surgical ailments in the given situation.
2. To provide adequate preoperative, perioperative, postoperative and follow-up care of surgical patients.
3. To provide and coordinate emergency resuscitative measures in acute surgical situations including trauma.
4. To discharge effectively medico legal and ethical responsibilities and participate in the national health programs.
5. To learn to obtain informed consent prior to performance of operative procedures.
6. To learn the basic steps in techniques of performing an operative procedure.
7. To update knowledge regarding recent advances and newer techniques in the management of patients.
8. To participate regularly in departmental academic activities by presenting seminars, case discussions, journal club and topic discussion on weekly basis and maintain logbook.
9. To know the basic concept of research methodology, plan a research project and know how to consult library.
10. To demonstrate and practice procedural skills in simulated environment.
11. To show integrity, accountability, respect, compassion and dedication in patient-care and demonstrate a commitment to excellence and continuous professional development.
12. To demonstrate sensitivity and responsiveness to patient's culture, age, gender and disabilities and show commitment to ethical principles related to providing patient care and confidentiality of patient information.

### **Programme: MS Otolaryngology**

#### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.  
To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.  
To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.  
To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.





To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.

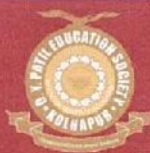
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.  
To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.  
To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
- ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.

To demonstrate self-motivation and awareness to their own limitations.

### **Learning Outcome**

1. To practice Otorhinolaryngology ailments in the given situation. Examine, investigate judiciously, diagnose and manage majority of conditions in Otorhinolaryngology Specialty.
2. To demonstrate sufficient understanding of basic sciences related to Otorhinolaryngology using models & mannequins in Simulation Skill Lab and by conducting dissections using Cadaveric Skill Lab. Able to integrate such knowledge in his Clinical practice.
3. To provide adequate preoperative, perioperative, postoperative and follow-up care of ENT patients.
4. To provide and coordinate emergency resuscitative measures in acute ENT situations including trauma.
5. To discharge effectively medico legal and ethical responsibilities and participate in implementation of National Program for prevention and control of deafness, plan & advise measures for the promotive, preventive, curative and rehabilitative aspects of health and diseases in the specialty of ENT.
6. To learn to obtain informed consent prior to performance of operative procedures.
7. To learn the basic steps in techniques of performing an operative procedure.
8. To demonstrate that he is fully conversant with the latest diagnostics & therapeutics





available and update knowledge regarding recent advances and newer techniques in the management of patients.

9. To participate regularly in departmental academic activities by presenting seminars, case discussion, journal club and topic discussion on weekly basis and maintain logbook.
10. To know the basic concept of research methodology, plan a research project and know how to consult library.
11. To show integrity accountability, respect, compassion and dedication in patient – care and demonstrate a commitment to excellence and continuous professional development.

## **Programme: MS Ophthalmology**

### **Graduate Attributes**

- ❖ To demonstrate knowledge about established and evolving biomedical and clinical sciences.  
To demonstrate ability to apply this knowledge to the practice of medicine in routine, emergency and disaster situations.  
To demonstrate ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care.
- ❖ To demonstrate ability to provide evidence-based care that is compassionate, respectful of patients' differences, values, and preferences.  
To demonstrate the ability to listen, clearly inform, communicate and educate patients & caregivers for the promotion of health, diagnosis of disease and the treatment of illness; advocate for disease prevention, wellness and the promotion of healthy lifestyles including a focus on population health.  
To demonstrate ability to accurately evaluate relevant social and clinical information in the context of the patient's visit.
- ❖ To demonstrate ability to communicate effectively, respectfully, non-judgmental, empathetic manner with patients, their families and colleagues that will improve patient satisfaction, health care and encourages participation and shared decision-making.
- ❖ To demonstrate an attitude of inquiry/search/investigation, scientific and objective effort to uncover facts.
- ❖ To demonstrate commitment to the highest standards of professional responsibility towards patient, colleagues, society and growth of medical professional and adhere to universally accepted code of ethics. To demonstrate personal attributes of compassion, honesty, integrity, accountability, empathy in patient encounters.
- ❖ To demonstrate the ability to work effectively, efficiently & in rational way with his/her colleagues and other team members, educate & motivate the team members in a manner to maximize the health delivery potential of the team, considering various roles, responsibilities and competencies of the other health professionals.  
To identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.
- ❖ To demonstrate accountability in fulfilling their duty for the benefit of the entire society.





- ❖ To demonstrate responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
  - ❖ To demonstrate ability to acquire new knowledge, skills and reflect upon their experience to enhance personal and professional growth and apply the information in the care of the patient.
- To demonstrate self-motivation and awareness to their own limitations.

### **Learning Outcome**

1. To describe & demonstrate gross, functional and applied anatomy and physiology of eye. Correlate anatomical basis of common clinical procedures like cataract surgery, Dacryocystorhinostomy, Pterygium excision with conjunctival autograph etc.
2. To present the symptoms, examination findings of the patient suffering from common eye keratitis, uveitis, Retinal lesions etc.
3. To discuss common investigative procedures and their interpretation required for diagnosing and managing the eye problems. Describe the rational and proper use of medicines with their adverse effects.
4. To describe National Programme on Blindness including National Programme for control of Blindness & Vision 2020, Common Ocular malignances and demonstrate knowledge of methods of screening for early detection of vision loss. Discuss methods of Prevention, early diagnosis and management guidelines of common ocular malignances for public guidance.
5. To develop & demonstrate the attitude, communication skills, adapt to changing trends in education, learning method and evolve new diagnostic and therapeutic technique in the subject of Ophthalmology. Describe and demonstrate the commitment to lifelong learning as an important part of physician growth.
6. To demonstrate the ability to work effectively, efficiently & in rational way with his/ her colleagues and other team members. Identify the self- potential, functioning ability as a team leader in primary and secondary health care settings, utilize various indicators of the health care system and to promote appropriate, low cost, ethical, fair and qualitative health delivery.