



**EDUCARE
INSTITUTE OF
DENTAL SCIENCES**

Kiliyamannil Campus, Chattiparamba, Malappuram - 676 504
Tel: 0483 2705602 / 2705603 / 2708353/ Fax: 0483 2706707
E-mail: admin@educareinstitute.in website: www.educareinstitute.in
An ISO 9001:2015 certified institution

**LIST OF COMPETENCIES – PO, CO
STATEMENTS
BDS & MDS**


DR.K.R. INDUSHEKAR MDS
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PROGRAM OUTCOMES – BDS

- PO1 Adequate knowledge of the scientific foundations on which dentistry is based and good understanding of various relevant scientific methods, principles of biological functions and being able to evaluate and analyze scientifically various established facts and data.
- PO2 Adequate knowledge of the development, structure and function of the teeth, mouth and jaws and associated tissues both in health and disease and their relationship and effect on general state of health and also bearing on physical and social well being of the patient.
- PO3 Adequate knowledge of clinical disciplines and methods which provide a coherent picture of anomalies, lesions and diseases of the teeth, mouth and jaws and preventive diagnostic and therapeutic aspects of dentistry.
- PO4 Adequate clinical experience required for general dental practice.
- PO5 Adequate knowledge of the constitution, biological function, and behaviour of persons in health and sickness as well as the influence of the natural and social environment on the state of health in so far as it affects dentistry.
- PO6 Able to diagnose and manage various common dental problems encountered in general dental practice keeping in mind the expectations and the right of the society to receive the best possible treatment available wherever possible.

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- PO7 Acquire the skill to prevent and manage complications if encountered while carrying out various surgical and other procedures.
- PO8 Possess skill to carry out certain investigative procedures and ability to interpret laboratory findings.
- PO9 Promote oral health and help prevent oral diseases where possible.
- PO10 Competent in the control of pain and anxiety among the patients during dental treatment.
- PO11 Willing to apply the current knowledge of dentistry in the best interest of the patients and the community.
- PO12 Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life.
- PO13 Seek to improve awareness and provide possible solutions for oral health problems and needs throughout the community.
- PO14 Willingness to participate in the CPED programmes to update the knowledge and professional skill from time to time.
- PO15 To help and participate in the implementation of the national oral health policy.


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COURSE OUTCOMES

HUMAN ANATOMY, EMBRYOLOGY, HISTOLOGY & MEDICAL GENETICS

CO1- Know the normal disposition of the structures in the body while clinically examining a patient and while conducting the clinical procedures

CO2 - Know the anatomical basis of disease and injury

CO3- Know the microscopic structure of the various tissues, a prerequisite for understanding the disease process.

CO4- Know the nervous system to locate the site of lesion according to the sensory and or the motor deficits encountered

CO5- Have an idea about the basis of the abnormal development, critical stages of development, effects of teratogens, genetic mutations and environmental hazards

CO6- Know the sectional anatomy of the head and neck and brain to read the features in the Radiographs and the picture taken by modern technique

CO7-Know the anatomy of cardiopulmonary resuscitation

CO8-To locate various structure of the body and to mark the topography of the living anatomy

CO9-To identify various tissues under microscope

CO10-To identify the features in radiography and modern imaging techniques.

CO11-To detect various congenital abnormalities.


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HUMAN PHYSIOLOGY

CO 1 Explain the normal functioning of all the organ systems and their interactions for well coordinated total body function.

CO 2 Assess the relative contribution of each organ system towards the maintenance of the milieu interior.

CO 3 List the physiological principles underlying the pathogenesis and treatment of disease.

CO 4 Conduct experiments designed for the study of physiological phenomena

CO 5 Interpret experimental and investigative data.

CO 6 Distinguish between normal and abnormal data derived as a result of tests which he/she has performed and observed in the laboratory.

CO 7 At the end of the integrated teaching the student shall acquire an integrated knowledge of organ structure and function and its regulatory mechanisms.

BIOCHEMISTRY

CO1- To provide a sound but crisp knowledge on the biochemical basis of the life processes relevant to the human system and to dental/medical practice.

DENTAL ANATOMY, EMBRYOLOGY AND ORAL HISTOLOGY

CO 1: Carving of crowns of permanent teeth in wax.

CO 2: Microscopic study of Oral tissues.

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CO 3: Identification of Deciduous & Permanent teeth.

CO 4: Age estimation by patterns of teeth eruption from plaster casts of different age groups

CO 5: The student is expected to appreciate the normal development, morphology, structure & functions of oral tissues & variations in different pathological/non-pathological states.

CO 6: The student should understand the histological basis of various dental treatment procedures and physiological ageing process in the dental tissues.

CO 7: The students must know the basic knowledge of various research methodologies.

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GENERAL PATHOLOGY

CO1- To demonstrate and apply basic facts, concepts and theories in the field of pathology

CO2- to recognize and analyse pathological changes at macroscopic and microscopic levels and explain their observations in terms of disease processes.

CO3- To integrate knowledge from the basic sciences, clinical medicine and dentistry in the study of pathology.

CO4- To demonstrate understanding of the capabilities and limitations of morphological pathology in its contribution to medicine, dentistry and biological research.

CO5- To demonstrate ability to consult resource materials outside lectures, laboratory and tutorial classes.

MICROBIOLOGY


CO1-Understand the basics of various branches of microbiology and be able to apply the knowledge relevantly.

CO2-Apply the knowledge gained in related medical subjects like General Medicine and General Surgery and dental subjects like Oral Pathology, Community Dentistry, Periodontics, Oral Surgery, Paedodontics, Conservative Dentistry and Oral Medicine in higher classes.

CO3-Understand and practise various methods of sterilisation and disinfection in dental clinics.

CO4-Have a sound understanding of various infectious diseases and lesions in the oral cavity.

CO5-Student should have acquired the skill to diagnose and differentiate various oral lesions.


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CO6-Should be able to select, collect and transport clinical specimens to the laboratory.

CO7-should be able to carry out proper aseptic procedures in the dental clinic.

GENERAL AND DENTAL PHARMACOLOGY AND THERAPEUTICS

CO1- Describe the pharmacokinetics and pharmacodynamics of essential and commonly used drugs in general and in dentistry in particular.

CO2-List the indications, contraindications; interactions, and adverse reactions of commonly used drugs with reason.

CO3- Tailor the use of appropriate drugs in disease with consideration to its cost, efficacy, safety for individual and mass therapy needs.

CO4- Indicate special care in prescribing common and essential drugs in special medical situations such as pregnancy, lactation, old age, renal, hepatic damage and immunocompromised patients.

CO5 - Integrate the rational drug therapy in clinical pharmacology.

CO6 - Indicate the principles underlying the concepts of "Essential drugs".

CO7- Prescribe drugs for common dental and medical ailments.

CO8- To appreciate adverse reactions and drug interactions of commonly used drugs.

CO9 - Observe experiments designed for study of effects of drugs.

CO10- Critically evaluate drug formulations and be able to interpret the clinical pharmacology of marketed preparations commonly used in dentistry.

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CO11 - INTEGRATION: Practical knowledge of use of drugs in clinical practice will be acquired through integrated teaching with clinical departments.

DENTAL MATERIALS

CO1 To understand the evolution and development of the science of dental material.

CO2 To explain the purpose of course in dental materials to personnels concerned with the profession of dentistry.

CO3 Knowledge of physical and chemical properties.

CO4 Knowledge of biomechanical requirements of particular restorative procedures.

CO5 An intelligent compromise of the conflicting as well as coordinating factors into the desired Ernest.

CO6 Laying down standards or specifications of various materials to guide to manufacturers as well as to help professionals

ORAL PATHOLOGY & ORAL MICROBIOLOGY

CO1 The different types of pathological processes that involve the oral cavity

CO2 The manifestation of common diseases, their diagnosis and correlation with clinical pathological processes


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CO3 The oral manifestation of systemic diseases to help in correlating with systemic, physical signs and laboratory findings

CO4 The underlying biological principles governing treatment of oral diseases

CO5 The principles of certain basic aspects of Forensic Odontology

CO6 Microscopic study of common lesions affecting oral tissues through microscopic slides and projection slides

CO7 Study of the disease process by surgical specimens

CO8 Study of teeth anomalies/polymorphisms through tooth specimens and plaster casts

CO9 Microscopic study of plaque pathogens

CO10 Study of haematological preparations (blood films) of anemias & leukoplakias

CO11 Basic exercise in Forensic odontology such as histological methods of age estimation and appearance of teeth in injuries

GENERAL MEDICINE

CO1 Special precautions/ contraindication of anaesthesia and various dental procedures in different systemic diseases, oral manifestations of systemic diseases and medical emergencies in dental practice.


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GENERAL SURGERY

CO1 To acquaint the student with various diseases, which may require surgical expertise and to train the student to analyse the history and be able to do a thorough physical examination of the patient.

CONSERVATIVE DENTISTRY AND ENDODONTICS

CO 1 To diagnose and treat simple restorative work for teeth.

CO 2 To gain knowledge about aesthetic restorative material and to translate the same to patients needs.

CO 3 To gain the knowledge about endodontic treatment on the basis of scientific foundation.

CO 4 To carry out simple endodontic treatment.

CO 5 To carry out simple luxation of tooth and its treatment and to provide emergency endodontic treatment

CO 6 To use medium and high speed hand pieces to carry out restorative work.

CO 7 Poses the skills to use and familiarise endodontic instruments and materials needed for carrying out simple endodontic treatment.

CO 8 To achieve the skills to translate patients esthetic needs along with function

CO 9 Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life.


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CO 10 Willingness to participate in CDE programme to update the knowledge and professional skill from time to time.

CO 11 To help and participate in the implementation of the national oral health policy.

CO 12 He should be able to motivate the patient for proper dental treatment at the same time proper maintenance of oral hygiene should be emphasised which will help to maintain the restorative work and prevent future damage.

ORAL & MAXILLOFACIAL SURGERY

CO1 Able to apply the knowledge gained in the related medical subjects like pathology, microbiology and general medicine in the management of patients with oral surgical problems.

CO2 Able to diagnose, manage and treat (understand the principles of treatment of) patients with oral surgical problems.

CO3 Knowledge of range of surgical treatments.

CO4 Ability to decide the requirement of a patient to have oral surgical specialist opinion or treatment.

CO5 Understand the principles of in-patient management.

CO6 Understanding of the management of major oral surgical procedures and principles involved in patient management.

CO7 Should know ethical issues and communication ability.

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CO8 A graduate should have acquired the skill to examine any patient with an oral surgical problem in an orderly manner. Be able to understand requisitions of various clinical and laboratory investigations and is capable of formulating differential diagnosis.

CO9 Should be competent in the extraction of teeth under both local and general anaesthesia.

CO10 Should be able to carry out certain minor oral surgical procedures under L.A. like frenectomy, alveolar procedures & biopsy etc.

CO11 Ability to assess, prevent and manage various complications during and after surgery.

CO12 Able to provide primary care and manage medical emergencies in the dental office.


CO13 Understanding of the management of major oral surgical problems and principles involved in inpatient management.

ORAL MEDICINE AND RADIOLOGY

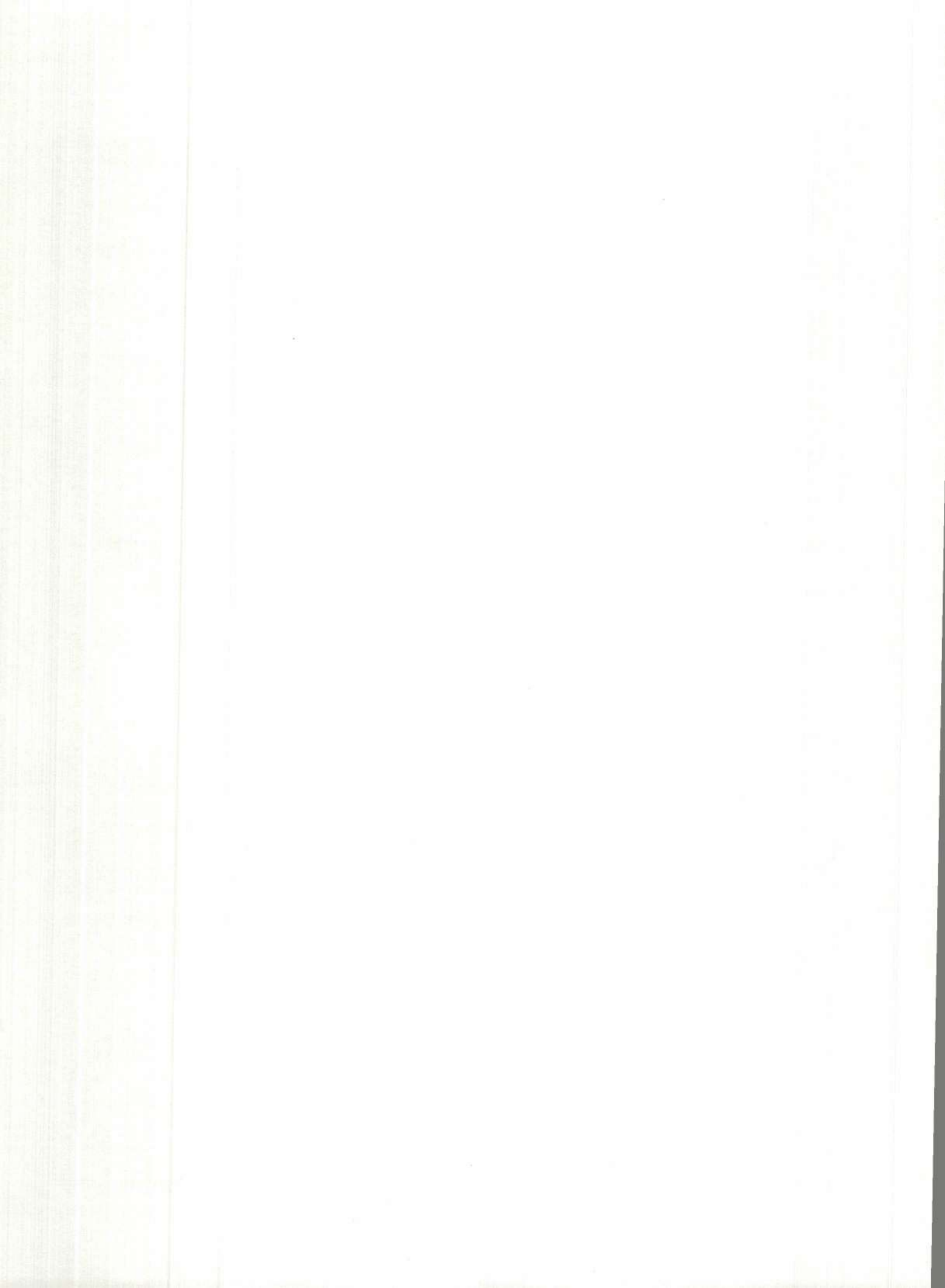
CO1 To train the students to diagnose the common disorders of Orofacial region by clinical examination and with the help of such investigations as may be required and medical management of oro-facial disorders with drugs and physical agents.

CO2 To train the students about the importance, role, use and techniques of radiographs/digital radiograph and other imaging methods in diagnosis.

CO3 The principles of the clinical and radiographic aspects of Forensic Odontology.


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ORTHODONTICS & DENTAL ORTHOPAEDICS

CO1 To enable the qualifying dental surgeon to diagnose, analyse and treat common orthodontic problems by preventive, interceptive and corrective orthodontic procedures.

PUBLIC HEALTH DENTISTRY

CO1 the student shall have a knowledge of the basis of public health, preventive dentistry, public health problem in India, nutrition, environment and their role in health, basis of dental statistics, epidemiological methods, national oral health policy.

CO2 the students shall acquire the skill of identifying health problems affecting the society, conducting health surveys, conducting health education classes and deciding the health strategies.

CO3 the students should develop positive attitude towards the problems of the society and must take responsibilities in providing health.

PERIODONTOLOGY

CO1 The student shall acquire the skill to perform dental scaling, diagnostic tests of periodontal diseases; to use the instruments for periodontal therapy and maintenance of the same.

CO2 The student shall develop attitude to impart the preventive measures namely, the prevention of periodontal diseases and prevention of the progress of the disease.

CO3 The student shall also develop an attitude to perform the treatment with full aseptic precautions; shall develop an attitude to prevent iatrogenic diseases; to conserve the tooth to the


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maximum possible time by maintaining periodontal health and to refer the patients who require specialist's care.

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MDS – REGULATION 2018-2019

PROGRAM OUTCOMES

- PO1** Demonstrate understanding of basic sciences relevant to specialty.
- PO2** Describe etiology, pathophysiology, principles of diagnosis and management of common problems within the specialty in adults and children.
- PO3** Identify social, economic, environmental and emotional determinants in a given case and take them into account for planned treatment.
- PO4** Recognize conditions that may be outside the area of specialty or competence and to refer them to the concerned specialist.
- PO5** Update knowledge by self-study and by attending courses, conferences and seminars pertaining to specialty.
- PO6** Undertake audit, use information technology and carry out research in both basic and clinical with the aim of publishing or presenting the work at various scientific gathering;
- PO7** Take a proper clinical history, examine the patient, perform essential diagnostic procedures and order relevant tests and interpret them to come to a reasonable diagnosis about the condition.
- PO8** Acquire adequate skills and competence in performing various procedures as required in the specialty.
- PO9** Adopt ethical principles in all aspects of practice.
- PO10** Foster professional honesty and integrity.
- PO11** Deliver patient care irrespective of social status, caste, creed, or religion of the patient.

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- PO12** Develop communication skills, to explain various options available and obtain a true informed consent from the patient.
- PO13** Provide leadership and get the best out of his team in a congenial working atmosphere.
- PO14** Apply high moral and ethical standards while carrying out human or animal research.
- PO15** Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed.
- PO16** Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.

COURSE OUTCOMES

PROSTHODONTICS

- CO1** Applied Basic Sciences: Applied anatomy, embryology, growth and development Genetics, Immunology, anthropology, Physiology, nutrition and Biochemistry, Pathology and Microbiology, virology, Applied pharmacology, Research Methodology and bio statistics, Applied Dental anatomy and histology, Oral pathology & oral Microbiology, Adult and geriatric psychology. Applied dental materials.
- CO2** Removable Prosthodontics and Implant supported prosthesis (Implantology), Geriatric dentistry and Cranio facial Prosthodontics
- CO3** Fixed Prosthodontics, occlusion, TMJ and esthetics.
- CO4** Descriptive and analyzing type questions


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