



8.1.8 The Institution has introduced objective methods to measure and certify attainment of specific clinical competencies by BDS Students or interns as stated in The Undergraduate curriculum by the Dental Council of India

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16/12/24



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**CERTIFICATE OF HEAD OF THE
INSTITUTION**

11/6/2024



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**DR VINOD KUMAR R.B
PRINCIPAL**

TO WHOMSOEVER IT MAY CONCERN

This is to certify that our Institution has introduced Objective methods to measure and certify attainment of specific clinical Competencies by BDS Students/interns as stated in the Undergraduate curriculum by the Dental Council of India, Details are given below.

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**LIST AND STEPS TAKEN BY THE COLLEGE TO MEASURE ATTAINMENT
OF SPECIFIC COMPETENCIES BY THE BDS STUDENTS/INTERNS**

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The institution consistently communicates the learning outcomes and graduate attributes of the BDS course, as required by the Dental Council of India (DCI) and Kerala University of Health Sciences (KUHS). These outcomes are effectively shared with both students and faculty through orientation programs and are also made accessible on the official website.

Learning outcomes of the BDS course:

- Attainment of the necessary knowledge, skills, and attitudes to perform general dental practice, including the prevention, diagnosis, and treatment of dental anomalies and diseases of the teeth, mouth, jaws, and related tissues.
- Understanding the concept of community oral health education and active involvement in rural healthcare delivery programs.
- Adequate knowledge of the development, structure, and function of the teeth, mouth, jaws, and associated tissues in both health and disease states, as well as their impact on overall health and patient well-being.
- Proficiency in clinical disciplines and methods related to the identification, diagnosis, and treatment of dental anomalies, lesions, and diseases, alongside preventive and therapeutic aspects of dentistry.
- Sufficient clinical experience to effectively practice general dentistry.
- A solid understanding of the biological functions and behaviors of individuals in both health and sickness, as well as the impact of the natural and social environment on oral health.



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- Ability to perform essential investigative procedures and interpret laboratory findings.
- Knowledge of infection control and cross-infection prevention measures in dental practice.
- Promotion of oral health and contribution to the prevention of oral diseases in individuals and communities.
- Motivation for engaging in interdisciplinary research and an emphasis on evidence-based dentistry.

Continuous assessment is essential in a competency-based curriculum. It ensures effective knowledge transfer and provides ongoing feedback on student learning. The program outcomes, program-specific outcomes, and course outcomes are continuously evaluated using various assessment methods, as detailed below:

METHODS OF ASSESSMENT

- **Theory internal exams**
- **Model practical exams**
- **Viva voce**
- **Assignments**
- **End posting exams**

- **Case history recording**
- **Chairside discussions**
- **Spotters**
- **Quizzes**
- **Seminar presentations**



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OSCE (Objective Structured Clinical Examination) is a practical assessment tool designed to evaluate students' clinical skills in an objective manner. During an OSCE, students rotate through a series of stations, each presenting a specific clinical scenario. At each station, students are assessed on their ability to perform a particular task or procedure, such as taking a medical history, conducting a clinical examination, or demonstrating a specific dental procedure. OSCEs are primarily used to evaluate clinical competencies, communication skills, and professionalism.

OSPE (Objective Structured Practical Examination) is another practical assessment method, similar to OSCEs but typically involving more complex scenarios. In an OSPE, students may be required to perform a series of related tasks, such as diagnosing a patient's condition and developing a treatment plan. OSPEs are commonly used to assess higher-order thinking skills like critical thinking and problem-solving, in addition to evaluating clinical skills and competencies.



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COMPETENCIES

After the completion of undergraduate training programme the graduate shall be competent in the following

• General skills

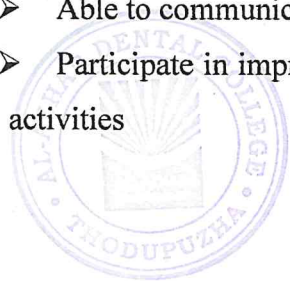
- Apply knowledge and skills in day to day practice
- Apply principles of ethics
- Analyze the outcome of treatment
- Evaluate the scientific literature and information to decide the treatment
- Participate and involve in professional bodies
- Self-assessment and willingness to update the knowledge and skills from time to time
- Involvement in simple research projects
- Minimum computer proficiency to enhance knowledge and skills
- Refer patients for consultation and specialized treatment
- Basic study of forensic odontology and geriatric dental problems

• Practice management

- Evaluate practice location, population dynamics and reimbursement mechanism
- Coordinate and supervise the activities of allied dental health personnel
- Maintain all records
- Implement and monitor infection control and environmental safety programs
- Practice within the scope of one's competence

• Communication and community resources

- Assess the patient's goals, values and concerns to establish rapport and guide patient care
- Able to communicate freely, orally and in writing with all concerned
- Participate in improving the oral health of the individuals through community activities



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- **Patient care- Diagnosis**

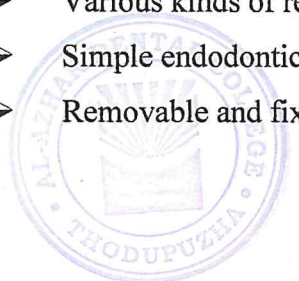
- Obtaining patient's history in a methodical way
- Performing thorough clinical examination
- Selection and interpretation of clinical, radiological and other diagnostic information
- Obtaining appropriate consultation
- Arriving at provisional, differential and final diagnosis

- **Patient care- Treatment planning**

- Integrate multiple disciplines into individual
- Comprehensive sequence treatment plan using diagnostic and prognostic information
- Able to order appropriate investigation

- **Patient care- Treatment**

- Recognition and initial management of medical emergencies that may occur during dental treatment
- Perform basic cardiac life support
- Management of pain including post-operative
- Administration of all forms of local anaesthesia
- Administration of intra-muscular and venous injections
- Prescription of drugs, pre-operative, prophylactic and therapeutic requirements
- Uncomplicated extraction of teeth
- Trans-alveolar extractions and removal of simple impacted teeth
- Minor oral surgical procedures
- Management of orofacial infections
- Simple orthodontic appliance therapy
- Taking, processing and interpretation of various types of intra-oral radiographs
- Various kinds of restorative procedures using different materials available
- Simple endodontic procedures
- Removable and fixed prosthodontics



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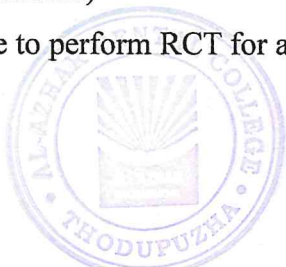
- Various kinds of periodontal therapy

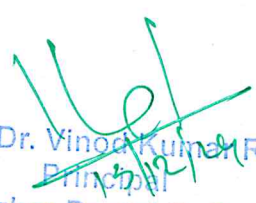
- **ORTHODONTICS & DENTOFACIAL ORTHOPAEDICS**

- Understand about the normal growth and development of facial skeleton and dentition
- Pinpoint operations in growth process in both dental and skeletal and plan necessary treatment
- Diagnose the various malocclusion categories
- Able to motivate and explain to the patient (and parent) about the necessity of treatment
- Plan and execute preventive orthodontics (space maintainers or space regainers)
- Plan and execute interceptive orthodontics (habit breaking appliances)
- Manage treatment of simple malocclusion such as anterior spacing using removable appliances
- Handle delivery and activation of removable orthodontic appliances
- Diagnose and appropriately refer patients with complex malocclusion to the specialist
- Be able to coordinate treatment with other healthcare providers and should understand the importance of interdisciplinary care.
- Be able to educate patients about proper oral hygiene practices and should be able to manage any oral hygiene issues that arise during orthodontic treatment.
- Have a good understanding of ethical principles and should be able to practice orthodontics in an ethical and professional manner.

- **CONSERVATIVE DENTISTRY AND ENDODONTICS**

- Competent to diagnose all carious lesions
- Competent to perform class I and class II cavities and their restoration with amalgam
- Restore class V and class III cavities with glass ionomer cements
- Able to diagnose and appropriately treat pulpally involved teeth (pulp capping procedures)
- Able to perform RCT for anterior teeth




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- Competent to carry out small composite restorations
- Understand the principles of aesthetic dental procedures
- **PERIODONTOLOGY**
 - Have thorough knowledge about basic sciences including anatomy, microbiology, pathology and immunology.
 - Be able to diagnose the patient's periodontal problem, decide a proper treatment plan, and perform an appropriate treatment.
 - Be competent to perform thorough oral prophylaxis, sub-gingival scaling & root planning and minor periodontal surgical procedures.
 - Be competent to educate and motivate the patient about oral hygiene maintenance to restore periodontal health.
 - Be competent to deliver proper post-operative instructions and do periodic recall and evaluation.
 - Be able to manage conditions like gingival/periodontal abscesses and acute pain.
 - Be familiar with concepts of flap surgeries, basic surgical aspects of implantology.
 - Have a good understanding of ethical principles and should be able to practice periodontics in an ethical and professional manner.
- **PROSTHODONTICS AND CROWN & BRIDGE**
 - Able to understand and use various dental materials
 - Competent to carry out treatment of conventional complete and partial removable dentures and fabricate fixed partial dentures
 - Able to carry out treatment of routine prosthodontics procedures
 - Familiar with the concepts of osseointegration and the value of implant-supported prosthodontic procedures
- **PAEDIATRIC AND PREVENTIVE DENTISTRY**



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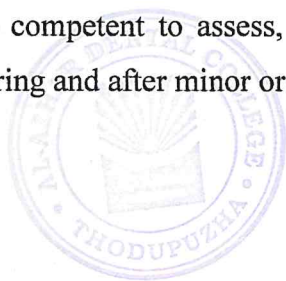


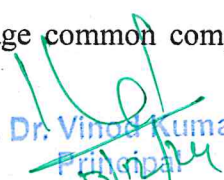
Pediatric and preventive dentistry is an age defined speciality that provides preventive, therapeutic and comprehensive oral health care to infants through adolescence and also those with special health care needs.

- Able to instil a positive attitude and behaviour in children towards better oral health and understand the principles of prevention and preventive dentistry from birth to adolescence.
- Able to guide and counsel the parents in regards to various treatment modalities including different facets of preventive dentistry.
- Able to treat dental diseases occurring in child patient
- Able to manage children with special health care needs effectively and efficiently, tailored to the needs of individual requirements and conditions.

• ORAL & MAXILLOFACIAL SURGERY

- Able to apply the knowledge gained in the basic medical and clinical subjects in the management of patients with surgical problems
- Able to diagnose, manage and treat patients with basic oral surgical problems
- Have a broad knowledge of maxillofacial surgery and oral implantology
- Be familiar with legal, ethical and moral issues pertaining to the patient care and communication skills
- Have acquired the skill to examine any patient with an oral surgical problem in an orderly manner
- Understand and practice the basic principles of asepsis and sterilisation
- Be competent in the extraction of the teeth under both local and general anaesthesia
- Be competent to carry out certain minor oral surgical procedure under LA like trans-alveolar extraction, frenectomy, dento alveolar procedures, simple impaction, biopsy, etc.
- Be competent to assess, prevent and manage common complications that arise during and after minor oral surgery




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- Be able to provide primary care and manage medical emergencies in the dental office
 - Be familiar with the management of major oral surgical problems and principles involved in the in-patient management.
-
- **ORAL MEDICINE AND RADIOLOGY**
- Be able to identify suspicious lesions of the oral cavity that may indicate the presence of oral cancer or pre-cancerous conditions. They should be able to refer patients to the appropriate specialist for further evaluation and treatment.
 - Have a good understanding of common laboratory investigations used in the diagnosis of oral and systemic diseases. They should be able to interpret the results of these investigations and use them to develop appropriate treatment plans.
 - Have a good understanding of medical complications that may arise while treating patients with systemic conditions. They should take appropriate precautions and obtain informed consent from medical specialists before proceeding with treatment.
 - Have a good understanding of the health hazards associated with radiation exposure, as well as the measures that can be taken to minimize exposure to patients and staff.
 - Be able to take intra-oral radiographs and interpret the radiographic findings accurately. This includes knowledge of the principles of radiographic interpretation and the ability to identify common pathologies.
 - Have a good understanding of extra-oral radiographic procedures, including Orthopantomography, Cephalic views and TMJ radiography. They should be able to use these procedures to diagnose and treat oral and maxillofacial conditions.
 - Be aware of the importance of radiographs in forensic identification and age estimation.
 - Have a good understanding of the legal and ethical aspects of dentistry. They should understand the significance of dental records and be able to use them to support legal and forensic investigations.



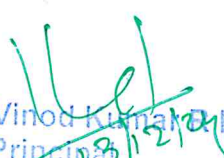
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- **PUBLIC HEALTH DENTISTRY**

- Apply the principles of health promotion and disease prevention
- Have knowledge of the organization and provision of health care in community and in the hospital service.
- Have knowledge of the prevalence of common dental conditions in India
- Have knowledge of community based preventive measures
- Have knowledge of the social, cultural and environmental factors, which contribute to health or illness
- Be able to administer oral hygiene instructions, topical fluoride therapy and fissure sealings
- Be able to educate patients concerning the etiology and prevention of oral diseases and encourage them to assure responsibility for their oral health.




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