

## **BDS - COURSE OUTCOMES**

The Bachelor of Dental Surgery (BDS) at Tagore is designed to enable graduates to become outstanding dentists and leaders in their chosen profession. Students will graduate with advanced knowledge of all aspects of oral health care provision with advanced clinical skills.

The graduate attributes have been developed and methodically designed to the intended learning outcomes of the subjects in the course (from the 1st year through to the final year) to meet the DCI norms.

The BDS graduate attributes reflect the Tagore Dental college graduate attributes of academic excellence, knowledge of the discipline, ability to live and work competently with people from different cultures and be model citizens. Course learning outcomes are organized in to the following 5 domains:

### **GENERIC SKILLS**

On completion of the BDS, students will be able to:

- Work as a member of a team;
- Design and conduct scientific investigations;
- Exhibit professional responsibility;
- Have an awareness of ethical, social and cultural issues and their importance in the exercise of professional skills and responsibilities;
- Value differences in health beliefs, lifestyles, ethnic and cultural background;
- Ensure safe and effective care for people of diverse backgrounds.

### **PROFESSIONALISM**

- The ability to apply practical skills and a recognition of their importance in health care;
- Have empathy, compassion, honesty, integrity, resilience and lifelong curiosity,
- Self-awareness, the ability to recognise when clinical problems exceed their knowledge and skill, and a willingness to seek help and/or to refer;
- The ability to identify and address their own learning needs ;
- A thorough understanding of the ethical principles and legal responsibilities involved in the provision of dental care to individual patients;
- Skills to use contemporary information technology for documentation including patient records, communication, management of information and applications related to health care.

## **SCIENTIFIC KNOWLEDGE:**

On graduation BDS graduates will have developed:

- Knowledge of the basic biological, medical, technical and clinical sciences in order to recognise the difference between normal and pathological conditions;
- Skills to analyse oral health as it relates to symptoms, signs and pathology;
- Skills required to prevent, diagnose and treat anomalies and illnesses of the teeth, and associated structures;
- Knowledge of the management and interaction (pharmacological, physical, nutritional, behavioural and psychological) of important oral and medically-related conditions;
- Skills to provide treatment options based on the best available information;
- Scientific principles of sterilisation, disinfection and antisepsis and infection control and waste disposal;
- Knowledge of the hazards of ionising radiations and their effects on biological tissues, together with the regulations
  - relating to their use, including radiation protection and dose reduction;
- Knowledge of research methods and their applications
- Knowledge of the moral and ethical responsibilities involved in the provision of care to individual patients, to populations and communities;
- Understand basic principles of practice administration, financial and personnel management to a dental practice.

## **PATIENT CARE:**

On graduation, BDS graduates will have developed:

- The ability to communicate with patients including the ability to listen to, respond to, and provide appropriate information to patients;
- Respect for patients' values and their expressed needs;
- Skills to manage and the potential impact of chronic illness and disability on the patient's oral health;
- Appropriate skills to obtain a thorough dental, medical and social history and perform an accurate oral examination;
- The ability to integrate and interpret clinical findings and apply reasoning to arrive at an appropriate diagnosis or differential diagnosis;
- The ability to formulate an evidence-based and cost effective treatment plan in collaboration with the patient;
- The ability to perform appropriate dental procedures effectively and safely, with due regard for the patient's comfort including during emergency procedures;

- The ability to predict, prevent and correct deficiencies in patients' oral hygiene regimens and provide patients with strategies to control undesirable habits affecting the maintenance of oral and general health;
- Skills to alleviate pain and provide appropriate treatment outcomes.

### **DENTAL PROFESSION:**

On graduation, BDS graduates will have developed:

- The ability to be an active participant in professional organisations, and an appreciation of the benefits of this participation
- The ability to provide effective peer review in order to assist colleagues to improve their performance
- Maturity and responsibility to maintain standards of dental practice at the highest level throughout a professional career;
- The philosophy of lifelong learning and accept that continuing professional development is required for professional growth.

### **THE SOCIETY**

On graduation, BDS graduates will have developed:

- The ability to contribute to their communities wherever they choose to live and work;
- Knowledge of the determinants of a 'healthy society' and the economic, political, psychological, social and cultural factors that contribute to the development and persistence of oral health and illness;
- Skills of oral health promotion including primary and secondary prevention and health education;
- Skills to identify the requirements of health care systems in a culturally diverse society;
- Respect community values, including an appreciation of a diversity of backgrounds and cultural values;
- Knowledge of the relationship between environmental issues and the oral health and health of local communities and society.

# **MDS - COURSE OUTCOME**

## **GOALS**

The goals of the post-graduate training in various specialities is to train the graduate in Dental Surgery who will,

- (i) practice respective speciality efficiently and effectively, backed by scientific knowledge and skill;
- (ii) exercise empathy and a caring attitude and maintain high ethical standards;
- (iii) continue to evince keen interest in professional education in the speciality and allied specialities whether in teaching or practice;
- (iv) willing to share the knowledge and skills with any learner, junior or a colleague;
- (v) to develop the faculty for critical analysis and evaluation of various concepts and views and to adopt the most rational approach.

## **OBJECTIVES**

The objective of the post-graduate training is to train a student so as to ensure higher competence in both general and special area of interest and prepare him or her for a career in teaching, research and speciality practice. A student must achieve a high degree of clinical proficiency in the subject and develop competence in research and its methodology in the concerned field. The objectives to be achieved by the candidate on completion of the course may be classified as under:– (a) Knowledge (Cognitive domain) (b) Skills (Psycho motor domain) (c) Human values, ethical practice and communication abilities.

### **(a) KNOWLEDGE.**

- (i) demonstrate understanding of basic sciences relevant to speciality;
- (ii) describe etiology, pathophysiology, principles of diagnosis and management of common problems within the speciality in adults and children;
- (iii) identify social, economic, environmental and emotional determinants in a given case and take them into account for planned treatment;
- iv) recognise conditions that may be outside the area of speciality or competence and to refer them to the concerned specialist;
- (v) update knowledge by self study and by attending courses, conferences and seminars pertaining to speciality;
- (vi) 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;

**(b) SKILLS:**

- (i) 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;
- (ii) acquire adequate skills and competence in performing various procedures as required in the speciality.

**(c) HUMAN VALUES, ETHICAL PRACTICE AND COMMUNICATION ABILITIES.**

- (i) adopt ethical principles in all aspects of practice;
- (ii) foster professional honesty and integrity;
- (iii) deliver patient care irrespective of social status, caste, creed, or religion of the patient;
- (iv) develop communication skills, to explain various options available and obtain a true informed consent from the patient;
- (v) provide leadership and get the best out of his team in a congenial working atmosphere;
- (vi) apply high moral and ethical standards while carrying out human or animal research;
- (vii) be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed;
- (viii) respect patient's rights and privileges including patient's right to information and right to seek a second opinion.

# COMPETENCIES REPORT

As the entire course is based on developing the knowledge and clinical skills, which would help them to develop later and have a good practice of their own or work for some person or organisation. The institution gives importance to developing skills and they are continuously monitored and assessed, and those who lag are given additional help and guidance. They are also given additional clinical work to those who are poor performers. All the procedures are guided by the faculties step by step till it is completed. Every case is discussed with the students as to the diagnosis, treatment plan, and the procedures to be followed. Practice makes perfect. So the departments have set quotas as to the number of cases to be done by the students so as to help them to perform well in the clinical examinations.

Clinical competencies are objectively measured by the staff on a regular basis. The faculties are encouraged to conduct surprise tests and viva to monitor the skill of the students and see that they have obtained the necessary skills. 2 clinical practical exams are conducted before the University Practicals to assess their performance. OSCE and OCPE methods are followed so as to assess the knowledge and skills of the students in a set pattern. There are two types of questions in the OSCE. Most stations have two questions and require the candidate to review the information supplied (e.g., case history, dental charts, photographs, radiographic images, casts, models, videos) and answer specific question or a multiple choice question. Some stations require the candidate to review the information supplied and write an acceptable prescription for a medication commonly prescribed by general dentists. The examiners have a checklist for evaluating the students and all the students are asked the same questions. All the students see the same problem and perform the same tasks within the same time frame. The tasks are representative of those faced in real clinical situation. Various clinical skills like history taking, physical examination, technical procedure, communication, interpersonal skills, patient education, knowledge and understanding, data interpretation, problem solving and attitudes are assessed.

The feedbacks of the patients attended by the students are obtained, to ascertain if they treated them well and to their satisfaction. Student feedback of the confidence to practice all aspects of dentistry is obtained from them at the completion of

their course. Evaluating the academic performance and the feedback from the students and patients it is obvious that we are on the right path and we are achieving our course outcomes.

## **LIST OF COMPETENCIES**

- Case Discussions With Faculty
- Pre Clinical Labs Skills Development
- Diagnose, Treatment Planning, Establishment And Maintenance Of Oral Health
- Communication Skills To Interact With Patients, And Their Families And Support Staff.
- Have Appropriate Ethical And Legal Standards In Providing Patient Centric Care.
- Step By Step Guidance For Procedures By Faculty
- Patient Position & Care, Infection Control
- Perform Basic Procedures Like Local Anaesthesia, Restorations Anterior And Posterior, Root Canal Treatment, Scaling And Root Planning, Simple Extractions And Suturing, Removable Partial Denture, Fixed Partial Denture, Complete Denture, Crowns., Radiographs, Orthodontic Diagnosis And Simple Orthodontic Treatments.
- Patient Education, Post Operative Instructions, Informed Consent
- Pharmacological Management Of Pain & Anxiety
- Behaviour Management Of Anxious Adult And Child
- Patient Referral
- Ethics And Jurisprudence
- Handle Medical Emergencies And Other Complications
- Should Demonstrate Practise Management Skills And Quality Assurance .
- Integrate Scientific Research With Clinical Expertise And Patient Value Based On Evidence Based Research.

- Appropriate Means Of Prevention, Intervention And Educational Strategies For All Patients At Risk Of Disease.
- Quotas As A Eligibility Criteria To Write Exams

### **Evaluation Of Competencies**

- Knowledge
- Skills
- Attitude (Interaction With Patients, Relatives, Ethics, Reliability, Professional Development, Team Work, Appearance)

### **Measurement of Attained Competencies**

- Traditional Methods
  - Tests,
  - Viva
  - Practical Exams
- Current Methods
  - MCQ Test
  - Open Book Test
  - Group Discussion
  - Online Answers
  - Patient Case Management
  - OSCE
  - OSPE
  - Case Based Questions
  - Critical Appraisals
  - Case Sheet Discussion
  - Clinical Competency Assessment
  - Reports/ Assignments
  - Feedback from Patients and relatives.



Longitudinal assessment- overall assessment over a period of time, daily evaluations, which include clinical competency of each case , stage viva, diagnosis, treatment planning, execution of procedure and the skill set exhibited, chart or model stimulated evaluation, OSCE, OSPE etc. Each department has a list of treatment procedures to be done in varying levels of difficulty by each student. There is a quota of work to be done (cases to be completed) and presentations and charts or models to be presented by the students for completion of work in each department.

Students are given individual attention while performing a treatment procedure wherein every step is supervised by the staff and corrected.

The students are divided into groups and assigned to a faculty member who serves as their group leader. The faculty becomes the students mentor, advocate, cheerleader, disciplinarian, and remedial resource.

The requirements for certification for competency achievement is obtained from all departments as to minimal requirements as per each speciality. Successful participation in remedial, progress in knowledge and skills set and attitude is a requisite along with satisfactory attendance is necessary for work completion.

# TAGORE DENTAL COLLEGE AND HOSPITAL



## STUDENT ATTRIBUTE

The institution works on well laid graduate attributes:

**BDS DENTAL GRADUATE ATTRIBUTES:**

**GOALS**

The dental graduates should acquire adequate knowledge during training in the institutions required skills and good attitude which is required for executing activities pertaining to general dental practice involving the prevention, diagnosis and treatment of pathologies and diseases of the teeth, mouth, jaws and associated structures. The graduate also should comprehend and the concept of community oral health education and be able to participate in the rural health care delivery programmes of the nation.

**OBJECTIVES:**

a. Knowledge and understanding

b. skills

c. Attitudes.

a. **KNOWLEDGE AND UNDERSTANDING:** The graduate should acquire the following during the period of training.

i. Adequate knowledge of the scientific foundations on which dentistry is based and good understanding of various relevant scientific methods, principles of biological functions and be able to evaluate and analyse scientifically various established facts and data.

ii. 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.

iii. 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.

iv. Adequate clinical experience required for general dental practice.

v. 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.

b. **SKILLS:**

c. A graduate should be able to demonstrate the following skills necessary for practice of dentistry.

i. 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.

ii. Acquire the skill to prevent and manage complications if encountered while carrying out various surgical and other procedures.

iii. Possess skill to carry out certain investigative procedures and ability to interpret laboratory findings.

iv. Promote oral health and help prevent oral diseases where possible.

v. Competent in the control of pain and anxiety among the patients during dental treatment.

d. ATTITUDES:

a. A graduate should develop during the training period the following attitudes.

b. Willing to apply the current knowledge of dentistry in the best interest of the patients and the community.

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

d. Seek to improve awareness and provide possible solutions for oral health problems and needs throughout the community.

e. Willingness to participate in the CPED Programmes to update the knowledge and professional skill from time to time.

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

MDS Dental graduate attributes

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1. Practice respective specialty efficiently and effectively, backed by scientific knowledge and skill;

2. Exercise empathy and a caring attitude and maintain high ethical standards;

3. Continue to evince keen interest in professional education in the specialty and allied specialties whether in teaching or practice;

4. Willing to share the knowledge and skills with any learner, junior or a colleague;

5. To develop the faculty for critical analysis and evaluation of various concepts and views and to adopt the most rational approach.

OBJECTIVES:

The objective of the post-graduate training is to train a student so as to ensure higher competence in both general and special area of interest and prepare him or her for a career in teaching, research and specialty practice.

A student must achieve a high degree of clinical proficiency in the subject and develop competence in research and its methodology in the concerned field. The objectives to be achieved by the candidate on completion of the course may be classified as under:–

a. Knowledge (Cognitive domain)

b. Skills (Psycho motor domain)

c. Human values, ethical practice and communication abilities

a. KNOWLEDGE

i. Demonstrate understanding of basic sciences relevant to specialty;

ii. Describe etiology, pathophysiology, principles of diagnosis and management of common problems within the specialty in adults and children;

iii. Identify social, economic, environmental and emotional determinants in a given case and take them into account for planned treatment;

iv. Recognise conditions that may be outside the area of specialty or competence and to refer them to the concerned specialist;

v. Update knowledge by self study and by attending courses, conferences and seminars pertaining to specialty;

vi. 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;

b. SKILLS:

i. 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;

ii. Acquire adequate skills and competence in performing various procedures as required in the specialty

c. HUMAN VALUES, ETHICAL PRACTICE AND COMMUNICATION ABILITIES.

i. Adopt ethical principles in all aspects of practice;

ii. Foster professional honesty and integrity;

iii. Deliver patient care irrespective of social status, caste, creed, or religion of the patient;

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- vii. Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed;
- viii. Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.