



# Dental Technician

Approved by  
Govt. of West Bengal  
An Initiative of Department of  
Youth Services, Govt. of West Bengal

Run by :



**I·R·H·C**  
**INSTITUTE OF**  
**RURAL HEALTH CARE**

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## COURSE: DENTAL TECHNICIAN

**Course Name** : Dental Technician

**Course Duration** : 12 months

### Introduction

#### DENTAL TECHNICIAN

Dental technology is an important branch of healthcare that involves the design, construction, and maintenance of dental appliances and restorations used to improve a patient's oral health. Dental technicians are highly skilled professionals who work closely with dentists and other healthcare providers to fabricate a wide range of dental prosthetics, including crowns, bridges, dentures, and orthodontic appliances.

The course of dental technician is designed to provide students with a comprehensive understanding of the materials, techniques, and technologies used in modern dental prosthetics. This program typically includes both classroom instruction and hands-on training in a laboratory setting, where students learn to work with a variety of materials and tools to create precise and accurate dental restorations.

Throughout the course of study, students learn to read and interpret dental prescriptions, take accurate measurements, and use specialized equipment to create dental prosthetics that meet the specific needs of each patient. They also learn to collaborate closely with dentists and other healthcare professionals to ensure that the patient's oral health needs are met with the highest level of precision and care.

Upon completion of the program, graduates are equipped with the knowledge and skills necessary to pursue a rewarding career as a dental technician, working in private dental practices, laboratories, and other healthcare settings. With the growing demand for quality dental care, the field of dental technology is a promising career choice for those interested in pursuing a career in healthcare.

### Desirable and Benefits of Dental Technician

Individuals who opt for a career as Dental Assistants assist in a wide range of healthcare duties, including taking dental x-rays and treating patients, as well as filing paperwork and making appointments. They help dentists in dealing with medical and dental emergencies. They keep track of medication in patient files. By sterilizing and disinfecting equipment, setting up instrument trays, packing supplies, and helping in dental operations, dental assistants assist in infection prevention. Individuals who opt for a career as a dental assistant follow the dentist's guidelines for treatment. Patients' medical and dental records are collected and registered by dental assistants.

**Maintain records:** In the career as Dental Assistant, professionals maintain patient records and create a precise and comprehensive health status report. They look after the patients' medications and keep an eye on them for any complications or adverse effects.

**Assistance:** Dental Assistants' main job is to assist the dentist in their duties by providing them all the instruments in the time of operation and also daily check-ups. They stand by the patient's chair and help dentists in their work.

# **Syllabus:**

**Total Course Duration: 360-hour**

## **Module 1: Introduction to Dental Technology (40 hours)**

- i. Overview of the dental laboratory and its role in patient care 10hrs
- ii. Introduction to dental materials and their properties 10hrs
- iii. Basic dental anatomy and terminology 10hrs
- iv. Occupational safety and health in the dental laboratory 10hrs

## **Module 2: Dental Anatomy and Occlusion (40hours)**

- i. Study of the anatomy of the oral cavity, teeth, and supporting structures 10hrs
- ii. Introduction to dental occlusion and its importance in dental restorations 10hrs
- iii. Basic principles of tooth morphology and esthetics 10hrs
- iv. Introduction to tooth preparation and impression techniques 10hrs

## **Module 3: Dental Materials (40 hours)**

- i. Study of the properties, characteristics, and uses of various dental materials, including ceramics, metals, and polymers 10hrs
- i. Introduction to dental adhesives and cements 10hrs
- ii. Basic principles of color science and shade selection 10hrs
- iii. Introduction to dental CAD/CAM technology 10hrs

## **Module 4: Dental Laboratory Techniques (40hours)**

- i. Introduction to laboratory equipment and materials 10hrs
- ii. Study of basic laboratory techniques, including mixing, pouring, and trimming models 10hrs
- iii. Introduction to waxing and casting techniques 10hrs
- iv. Study of dental articulators and their use in fabricating restorations 10hrs

## **Module 5: Dental Implants (40 hours)**

- i. Introduction to dental implantology and osseointegration 10hrs
- ii. Study of implant components and their functions 10hrs
- iii. Basic principles of implant placement and restoration 10hrs

iv. Introduction to implant impression techniques 10hrs

### **Module 6: Removable Prosthetics (40 hours)**

i. Study of removable partial and complete dentures 10hrs

ii. Introduction to impression techniques for removable prosthetics 10hrs

iii. Basic principles of denture design and fabrication 10hrs

iv. Introduction to denture repairs and relines 10hrs

### **Module 7: Fixed Prosthetics (40 hours)**

i. Study of fixed partial dentures and single crowns 10hrs

ii. Introduction to impression techniques for fixed prosthetics 10hrs

iii. Basic principles of crown and bridge design and fabrication 10hrs

iv. Introduction to dental laboratory communication and teamwork 10hrs

### **Module 8: Dental Esthetics (40 hours)**

i. Introduction to smile design and analysis 10hrs

ii. Study of porcelain veneers and all-ceramic restorations 10hrs

iii. Basic principles of dental bleaching and tooth whitening 10hrs

iv. Introduction to cosmetic bonding techniques 10hrs

### **Module 9: Dental Technology Management (40 hours)**

i. Study of dental laboratory business models 10hrs

ii. Introduction to dental laboratory regulations and compliance 10hrs

iii. Basic principles of laboratory record-keeping and documentation 10hrs

iv. Introduction to dental laboratory marketing and customer service 10hrs

## **Job Opportunity**

**Junior Dental Assistant:** Junior Dental Assistants learn and practice how to provide clinically excellent dental care. They greet the patient and lead them to their specific dental chair. Junior Dental Assistants check the reports to keep patients up to date.

**Senior Dental Assistant:** Senior Dental Assistants provide patients oral hygiene instruction. They assist with the administration of dental services by setting up consultation facilities, patients, equipment, and supplies. They provide assistance to dentists in medical and dental emergencies.

Dental assistants will be required more as dental practices expand. Preventive dental care will continue to be in high demand due to the ageing population and the research related to oral hygiene and overall health. Dental assistant jobs are expected to rise at a faster rate than the national average over the next ten years, at 7 per cent. The demand for dental assistant programs will continue to rise due to ongoing studies that link oral health to overall health.

## **Minimum Eligibility**

The minimum qualification for admission is class 10<sup>th</sup> Passed from any recognized board in India.