

## **Postgraduate Diploma in Biomedical Technology**

Duration 1-year full-time: 2022-2023

Intake capacity: 15 Students

Start date: October 2022

Location: Gujarat Technological University (GTU)

### **Background**

In the corona pandemic, we witnessed a tremendous demand for life-saving medical instruments—from ventilators to pulse oximeters and infrared thermometers. Even to a layperson, the pandemic has made it abundantly clear that medical technology plays a critical role in saving lives.

Who are those—invisible professionals—that design the life-saving technology? They are Biomedical engineers or technologists. Being at the intersection of engineering, biology, and medicine, Biomedical Engineering, a multidisciplinary branch, is the most exciting profession impacting people's lives.

Beyond the general importance of this field, Biomedical Engineering carries a special significance for India, a populous country with an underdeveloped medical infrastructure that primarily imports medical devices (80%). India needs to pioneer home-grown medical technology that is not only frugal, simple, robust, and reliable but also fits well even in the clinical setting of small villages. To this end, a skilled workforce is needed.

### **Program Overview**

To fulfill this need, GTU has developed a new postgraduate diploma in Biomedical Technology program that imparts multidisciplinary knowledge and practical skills to science graduates, thus readying and inspiring them to take up the exciting challenge.

Through this course—involving project-based learning—students will gain a wide range of interdisciplinary skills, develop an ability to collaborate and solve problems while doing small projects, and get hands-on experience in designing biomedical instruments.

### **Eligibility**

This course is open to science graduates of any stream including engineers, physiotherapist, clinicians, and basic science students.

### Course Structure

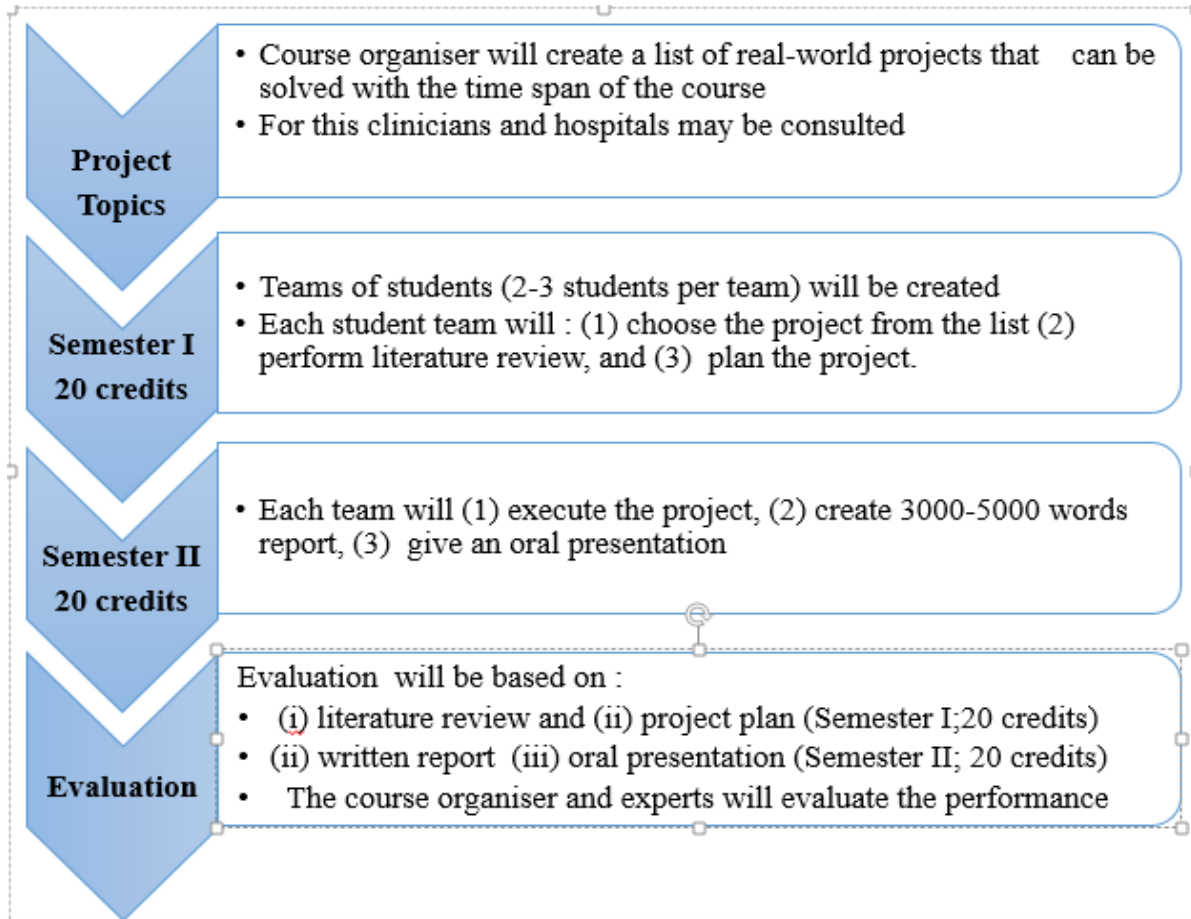


Figure 1. The course structure of the program

As given above is the course structure of the program. With an emphasis on practical or skill-based focus, the program adopts a project-based learning approach that involves both technical and soft skills such as group learning, interpersonal communication, and team building. The program is divided into two semesters, each worth 20 credits. The evaluations will be done at the end of each semester.

### Employment opportunities

Exciting employment opportunities await the students of the program. This includes a career in designing and manufacturing instruments, consulting, and employment in hospitals as a biomedical technologist and safety officer in medical device regulatory agencies.

**Course faculties**

Dr. Bhavin Parekh

Dr. Kayshap Thummar

Dr Vaibhav Bhatt

Dr Dolatsinh Zala

Darshak Shah (Embedded system engineer trained with Phillips)