

## **Introduction**

Dental technology is the technical side of dentistry which is being introduced for the first time in Malaysia, at AIMST University. This 4 years programme is a professional course to educate and train students to become dental technicians. The programme aims to develop dental technologists with foundation knowledge to work effectively as a part of the dental team for the planning, designing and fabrication of various dental prostheses like complete dentures, removable partial dentures, fixed dental prostheses, and other intra oral appliances like orthodontic appliances etc.

Dental technicians are a crucial part of the dental team who develop good eye-hand coordination and color perception, dexterity in using small instruments, the patience to attend to minute detail and an interest in learning the underlying material science. Due to the increasing number of dentists graduating every year, AIMST university has recognized an increase in demand for Dental technologists to produce dental and orofacial prostheses. At present, in Malaysia, various universities offer Dental technology at diploma level but this will be the first ever programme conducted in the country, our benchmark would be against a similar B. Dent. Tech. programme at international level.

The basic biomedical sciences within this programme will be taught in the school of medicine. The technical learning will be carried out in the school of dentistry and dental hospital. The students of dental technology will be integrated with the undergraduate dental students for some elements of course to ensure effective teamwork throughout their dental profession. The Dental technology laboratory in AIMST University is accommodated in the Dental Faculty with three teaching laboratories together with dedicated acrylic, ceramic and metal working areas accommodating about 75 workstations. The students will be studying and working alongside students of the Bachelor of Dental Surgery Program.

## **Programme**

### **BACHELOR OF DENTAL TECHNOLOGY (BDT)**

#### **Dental Technology Programme at AIMST**

The Dental Technology programme is the first ever kind of bachelor degree in Malaysia. It is a professional course designed to coach and to nurture the students to equip as skilled dental technologists. The programme aims to develop dental technologists with foundation knowledge to work effectively as a part of the dental team for the planning, designing and fabrication of various dental prostheses like complete dentures, removable partial dentures, fixed dental prostheses, and other intra oral appliances like orthodontic appliances etc.

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#### **Career opportunities**

- Dental technician in Ministry of Health Dental Service
- Dental technician in the Armed Forces
- Dental technician in Dental Clinics
- Dental technician in Companies (Industry manufacturing dental prosthetic materials)
- Dental technician in Private Dental Laboratories
- Dental technician in University Teaching and Research

## Basic Structure

Year 1 The first year deals with the introduction of basic medical sciences like anatomy and physiology to enhance their knowledge and understanding in dentistry. Students will be introduced to basic dental science disciplines (oral biology, **oral physiology**, dental laboratory and prosthetic technology)

Year 2 More detailed study of anatomy, physiology, **pathology, oral microbiology**, , oral biology, dental material and prosthetic technology will be taught. Students will develop the laboratory skills to fabricate complete dentures, removable partial dentures, orthodontic appliances and maxillofacial prosthesis.

Year 3 Students will be trained with regard to the laboratory aspects of fixed partial prosthodontics which encompasses crowns and bridges, veneers, inlays and onlays. The principles involved in health promotion and health education will be also incorporated in the curriculum **with special emphasis on Communication, sociology and psychology.**

Year 4 Final year emphasises on the application of knowledge and skills involved in management of dental cases. At the end of their course, every student is entitled to undergo a six month compulsory training in dental laboratories to understand how the public and private dental laboratories handle prosthodontic and orthodontic cases.

Examinations are conducted at the end of each semester. Knowledge of students is assessed by written (continuous assessment and final examinations), OSPA (objective structured practical assessment), OSCA (objective structured clinical assessment) and problem based learning. Meanwhile every laboratory session in the dental technology laboratory will be assessed and grades are given for the same.

## Course Curriculum

<i>Course scheme</i>	<i>Laboratory scheme</i>
<ul style="list-style-type: none"><li>• Anatomy</li><li>• General physiology</li><li>• Oral physiology</li><li>• Oral biology</li><li>• General pathology</li><li>• Oral microbiology</li><li>• Laboratory materials</li><li>• Prosthetic technology</li><li>• Professional development</li><li>• Promotion of dental health</li><li>• Student research project</li></ul>	<ul style="list-style-type: none"><li>• Basic dental techniques</li><li>• Complete denture</li><li>• Removable partial denture</li><li>• Cast partial denture</li><li>• Crown and bridges</li><li>• Inlays</li><li>• Onlays</li><li>• Ceramics</li><li>• Veneers</li><li>• Fixed dental prosthesis</li><li>• Orthodontic appliances</li><li>• Maxillofacial prosthesis</li></ul>

**Duration :** 4 years Full time

## Entry Requirements

- (i) All applicants who enter a matriculation, foundation or premedical programme, except those with a degree qualification in arts or humanities, shall have passed and attained a minimum of the following at School Certificate level or its equivalent:

Examinations	Requirements
Sijil Pelajaran Malaysia (SPM)	5 Bs each in Biology, Chemistry, Physics, Mathematics (or Additional Mathematics) and another subject.
General Certificate of Education Ordinary ("O") Levels	5 Bs each in Biology, Chemistry, Physics, Mathematics (or Additional Mathematics) and another subject.
Unified Examination Certificate ( UEC)	B4 each in 4 subjects i.e. Biology, Chemistry, Physics, (or Mathematics or Additional Mathematics) and another subject.

(ii) All applicants except those with a degree qualification in arts or humanities shall have passed and attained a minimum of the following at:

a. Higher school certificate level or its equivalent.

Examinations	Requirements
Sijil Tinggi Pelajaran Malaysia ( STPM)	Grades BBB, ABC or AAC in 3 subjects i.e. Biology, Chemistry, Physics or Mathematics
General Certificate of Education Advanced (“A”) Levels	Grades BBB, ABC or AAC in 3 subjects i.e. Biology, Chemistry, Physics or Mathematics
Matriculation or Foundation in Science or Pre-Medical Course	CGPA 3.00 (out of 4) in 3 subjects i.e. Biology, Chemistry, Physics or Mathematics and Provided the course is not less than 1 year in the same accredited institution and the minimum entry qualification is 5Bs each in Biology, Chemistry, Physics, Mathematics (or Additional Mathematics) and another subject at School Certificate level or its equivalent.
Unified Examination Certificate(UEC)	B4 each in 5 subjects i.e. Biology, Chemistry, Physics, Mathematics and Additional Mathematics
Monash University Foundation Pre- University Program (MUFY); or University of New South Wales (UNSW); or Foundation; or Western Australia Curriculum Council ; or HSC Sydney Australia; or Trinity College Foundation Studies; or Australian Universities Foundation Programmes; or South Australian Matriculation (SAM); OR Victorian Certificate of Education, Australia Year 12	Aggregate or average of 80% in any three subjects i.e. Biology, Chemistry, Physics or Mathematics or 80% ATAR
National Certificate of Educational Achievement (NCEA) Level 3; or New Zealand Bursary	Average of 80% in any three subjects i.e. Biology, Chemistry, Physics or Mathematics
Canadian Pre-University (CPU); or Canadian International Matriculation Program (CIMP) / Canadian Grade 12/13	Average of 80% in any three subjects i.e. Biology, Chemistry, Physics or Mathematics
Indian Pre -University	Average of 70% in any three subjects i.e. Biology, Chemistry, Physics or Mathematics
International Baccalaureate ( IB )	30 points with a minimum of 2 science subjects or Mathematics at Higher Level (HL) and 1 science subject at Standard Level and attained a minimum score of 4 each in Biology, Chemistry, Physics (or Mathematics)

Or

Diploma Level ( Level 4 MQF)

Examinations	Requirements
Diploma in Health Sciences	CGPA 3.50 (out of 4) and Provided the course is not less than 5 semesters or two and half years in the same accredited institution and the minimum entry qualification is 5 Bs each in Biology, Chemistry, Physics, Mathematics ( or Additional Mathematics) and another subject at School Certificate level or its equivalent.