

## **REGULATIONS FOR THE DEGREE OF MASTER OF DENTAL SURGERY IN IMPLANT DENTISTRY (MDS[ImplantDent])**

*(See also General Regulations)*

Any publication based on work approved for a higher degree should contain a reference to the effect that the work was submitted to The University of Hong Kong for the award of the degree.

The degree of Master of Dental Surgery in Implant Dentistry (MDS[ImplantDent]) is a postgraduate degree awarded following the satisfactory completion of a prescribed course of study and research/clinical applications related to dental practice.

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### **Admission requirements**

**D162** To be eligible for admission to the curriculum for the degree of Master of Dental Surgery in Implant Dentistry, a candidate shall

- (a) comply with the General Regulations;
  - (b) hold the degree of Bachelor of Dental Surgery from this University, or a degree of other qualification of equivalent standard from another university or comparable institution accepted for this purpose; and
  - (c) satisfy the examiners in a qualifying examination if required.
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### **Qualifying examination**

**D163** (a) A qualifying examination may be set to test a candidate's formal academic ability or his ability to complete the prescribed courses of study and practice. It shall consist of one or more written papers, or the equivalent, and may include a project report, practical examination and oral examinations.

- (b) A candidate who is required to satisfy the examiners in a qualifying examination shall not be permitted to register until he has satisfied the examiners in the examination.
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### **Award of degree**

**D164** To be eligible for the award of the degree of Master of Dental Surgery in Implant Dentistry, a candidate shall

- (a) comply with the General Regulations; and
  - (b) complete the curriculum, complete and present a written dissertation or project report or research paper in publication format, and satisfy the examiners in accordance with the regulations set out below.
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### **Curriculum**

**D165** The curriculum shall comprise an approved programme of study, practice and research in a field related to the practice of dentistry as prescribed in the syllabuses. It shall extend over not less than thirty-two months of full-time study, and shall include all examinations and the submission of a dissertation, project report or research paper in publication format.

- D166** To complete the curriculum, a candidate shall
- (a) follow instruction in the courses prescribed and complete satisfactorily all coursework requirements;
  - (b) satisfy the examiners in all examinations as may be required; and
  - (c) complete and submit a dissertation, project report or research paper in publication format which satisfies the examiners.
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### **Dissertation or project report or research paper**

**D167** The title of the dissertation or project report or research paper in publication format shall be submitted for approval not later than April 30 in the final academic year of study, and the dissertation or project report or research paper in publication format shall be submitted not later than August 1 in the same year; the candidate shall submit a statement that the dissertation or project report or research paper in publication format represents his own work undertaken after registration as a candidate for the degree. The examiners may prescribe an oral examination on the subject of the dissertation or project report or research paper in publication format.

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### **Examinations or assessments**

**D168** Examinations or assessments may be held in each year of study and may take the form of written papers; oral, practical, and clinical examinations; assessments of coursework; or a combination of these methods. Any assessment of the candidate's coursework during the course of study, including written assignments, shall be taken into account in determining the candidate's overall result.

**D169** A candidate who has failed to satisfy the examiners in any part of the examinations may be permitted to present himself again for examination at a time to be determined by the Board of Examiners; or he may be recommended for discontinuation of studies under the provisions of General Regulation G12.

**D170** A candidate who has presented a dissertation or project report or research paper in publication format which has failed to satisfy the examiners may be permitted to revise and re-present the dissertation or project report or research paper in publication format within a period to be determined by the Board of Examiners; or he may be recommended for discontinuation of studies under the provision of General Regulation G12.

**D171** Failure to take any examination as scheduled normally shall result in automatic course failure.

**D172** A candidate who is unable, through illness, to be present at an examination may apply in writing within 2 weeks of the examination for permission to be examined at some other time to be determined by the Board of Examiners.

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### **Examination or assessment results**

**D173** At the conclusion of the examinations or assessments, and after presentation of the dissertations or project reports or research paper in publication format, the names of the successful candidates shall be published in alphabetical order. A candidate who has shown exceptional merit may be awarded a mark of distinction, and this mark shall be recorded in the candidate's degree diploma.

**SYLLABUSES FOR THE DEGREE OF  
MASTER OF DENTAL SURGERY IN IMPLANT DENTISTRY  
(MDS[ImplantDent])**

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**A. PREAMBLE**

1. The objectives of the MDS(ImplantDent) curriculum are to enable candidates to achieve an advanced level of knowledge and competence in a branch of dental surgery by means of
  - (a) a prescribed course of study (i.e., lectures, seminars, related written and practical and/or clinical work); and
  - (b) additionally, a supervised research project and the submission of a written project report, dissertation or research paper in publication format.

The prescribed course of study will include certain core subjects to be taken by all candidates, but otherwise it will be designed, in accordance with the syllabuses, to take account of the needs of individual candidates. The supervised research projects will also be related to each candidate's course of study in Implant Dentistry.

2. Candidates must attend for clinical practice in the Prince Philip Dental Hospital (or another approved hospital) for at least four sessions a week in such programme area or areas as are prescribed.
  3. The methods and pattern of assessment and examination of each candidate will be determined by the Postgraduate Programme Directors concerned, having regard in each case to the nature and particular emphases of the candidate's programme of work.
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**B. SYLLABUSES**

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**DENT7003 Master of Dental Surgery in Implant Dentistry**

The curriculum extends over not less than thirty-two months of full-time study, has a minimum of 1800 hours of study and clinical practice related to the practice of Implant Dentistry.

The Master of Dental Surgery in Implant Dentistry [MDS(ImplantDent)] is a course of study that is designed to enable practising dentists to acquire clinical training in implant dentistry as a contemporary component of comprehensive dental care. Students must attend the Prince Philip Dental Hospital (or another approved hospital) as prescribed by the Programme Director.

The course includes lectures, tutorials, case conferences, clinical and laboratory work together with project assignments, training in research method and the conduct of a research project along with the preparation of a dissertation on this project.

## Course Modules

This programme is aimed at comprehensive advanced implant training. All the components of the course are compulsory. Emphasis is placed on the academic aspects of implant dentistry as well as the practical training in diagnosis and treatment planning to allow safe and proper incorporation of implants into comprehensive dental care.

The course includes the following components:

### (A) Didactic and Clinical Components

#### 1. Basic Sciences in Relation to Implant Dentistry

This component of the course introduces the discovery of titanium oral implants. It elaborates on the design and surface characteristics of implant devices. Students will gain detailed knowledge of the wound healing processes, implant/bone interfaces, mucosal healing sequences and biomechanical aspects of oral implants. Evidence-based dentistry principles will be emphasised in relation to the longevity of implants and implant-supported prostheses.

#### 2. Diagnosis and Treatment Planning

Correct and accurate diagnostic processes and proper treatment planning adequately considering the patients' needs for rehabilitation of the dentition are paramount in the incorporation of implants during therapy. The use of implants as a treatment for the replacement of missing teeth and the restoration of oral health, function, and aesthetics will be extensively explored. Treatment planning conferences will regularly be held both involving the patients being treated within the MDS programme and standard cases prepared for such exercises.

#### 3. Imaging

The use of imaging is important for the evaluation of implant sites and the planning of the implantation procedures including the selection of implants. The application of panoramic radiographs and conventional plain films for screening will be supplemented by the teaching of new tomographic techniques that include Scanora and CT. The use of specialised computer software for treatment planning and fabrication of precision surgical templates will also be demonstrated.

#### 4. Patient Selection

Assessment of clinical cases in relation to patients' needs and expectations, as well as evaluation of risk factors for implant therapy will ensure a favourable outcome of treatment. Clinicians must be familiar with indications and contraindications of such therapy. The risk of implant treatment in diabetic patients, immunologically compromised patients, and smokers will be discussed.

#### 5. Presurgical Patient Preparation

Students will be instructed how to formulate a treatment protocol, to discuss and liaise with colleagues, dental nurses, and laboratory technicians. They will be guided to plan meticulously for the cases under their care and discuss the rationale for the treatment proposal with their supervisors.

6. Surgical Aspects of Implantology

Sound surgical principles and aseptic techniques will be discussed. Hands-on surgical techniques will be taught in the Simulation Laboratory on the sixth floor of the Prince Philip Dental Hospital. Live surgeries will be carried out and demonstrated by experienced surgeons in the field of implant dentistry with the aid of modern audio-visual equipment. Students will have the opportunity to assist during the installation of implants.

7. Restorative Aspects of Implantology

Students will gain in-depth knowledge in the selection of abutments, the choice of screw-retained or cemented prostheses, and the various impression techniques. This component of the course will focus on the scientific and practical aspects of selection of metal alloys, polymeric resins, and ceramics for the construction super-structures. The importance of occlusion in relation to loading of prostheses will be highlighted.

8. Maintenance of Peri-implant Health

Emphasis will be placed on the regular monitoring and maintenance of health of host tissues. The importance of minimising microbiological burden through proper hygiene measures and adjunct chemotherapeutic agents will also be stressed.

9. Maintenance of Implant-supported Prostheses

This course deals with the regular review and maintenance of prostheses, particularly in relation to biological and technical complications. Chairside and laboratory techniques will be performed in the maintaining peri-implant health through proper supportive therapy and servicing of the prostheses.

10. Diagnosis and Management of Peri-implant Biological Complications

The importance of regular follow-up visits will be emphasised for the early detection of pathology and prompt treatment. Students will understand the pathogenesis and the management of soft-tissue inflammatory reactions, bone loss, infections, and other complications. The Cumulative Interceptive Supportive Therapy concept (CIST) will be implemented.

11. Laboratory Techniques and CAD/CAM Technology

Students will be instructed in the analyses of mounted casts, the construction of surgical templates, fabrications of provisional fixed and removable prostheses, and design of definitive prostheses. Advances in computer-aided design/computer-aided manufacturing in producing a milled framework, abutments, and ceramics will be demonstrated.

12. Research Methods in Implantology

This course introduces the general methodologies in the research of implantology. It includes project design, basic principles of statistics, and data analysis. This will be illustrated by selected articles from the literature. The use of the dental literature and library facilities will be demonstrated.

Under the guidance of supervisors, students are also required to submit a dissertation, project report or research paper in publication format following the successful completion of a research project (see also (B) below).

### 13. Oral Health Science Seminars

The students are required to attend weekly Oral Health and Science Seminars to broaden their knowledge and be informed of the latest developments in other areas of dentistry.

#### **(B) Directed Self-study and Literature Seminar**

In addition to close teacher-student contact hours, students are required to study the literature and relevant books as directed and recommended by their teachers and supervisors. The relevant and assigned literature will be discussed and evaluated for its scientific content and quality in seminars.

#### **(C) Research in Implant Dentistry**

This component examines trends in the research and development of dental Implant therapy. It is based upon the principle of hypothesis testing and the choice of the appropriate research methodology. The research protocol should be established and approved by the programme director and appropriate committees (Human Ethics, Animal Research) at the end of the first year of study.

#### **(D) Dissertation or Project Report or Research Paper**

A dissertation or project report or research paper shall result from the candidate's own research work. Efforts should be made to achieve publication in an international and peer-refereed journal of high impact factor.

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