REGULATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN IMPLANT DENTISTRY (MSc[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 Science in Implant Dentistry is a postgraduate degree awarded following the satisfactory completion of a prescribed course of study and clinical applications related to dental implantology.

Admission requirements

D138 To be eligible for admission to the curriculum for the degree of Master of Science 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.

Qualifying examination

D139 (a) A qualifying examination may be set to test a candidate's formal academic ability or his or her 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 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 or she has satisfied the examiners in the examination.

Award of degree

D140 To be eligible for the award of the degree of Master of Science in Implant Dentistry, a candidate shall:

(a) comply with the General Regulations; and
(b) complete the curriculum and satisfy the examiners in accordance with the regulations set out below.

Curriculum

D141 The curriculum shall consist of a minimum of 600 hours of study and clinical practice related to Implant Dentistry as prescribed in the syllabuses. It shall extend over not less than 1 academic year of full-time study or not less than 2 academic years of part-time study, and shall include all examinations and the submission of a clinical paper or project report.

D142 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 clinical paper or project report that satisfies the examiners.

Clinical paper or project report

D143 The title of a clinical paper or project report shall be submitted for approval not later than April 30 in the final academic year of study, and the written work shall be submitted not later than September 1 in the same year. The candidate shall submit a statement that the paper or report represents his or her own work undertaken after registration as a candidate for the degree. The examiners may prescribe an oral examination on the subject of the clinical paper or project report.

Assessments

D144 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.

D145 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.

D146 A candidate who has failed to satisfy the examiners in any part of the examinations may be permitted to present again for examination at a time to be determined by the Board of Examiners; or he or she may be recommended for discontinuation of studies under the provisions of General Regulation G12.

D147 A candidate who has presented a clinical paper or project report that has failed to satisfy the examiners may be permitted to revise and re-present the written work within a period to be determined by the Board of Examiners; or he or she may be recommended for discontinuation of studies under the provision of General Regulation G12.

D148 Failure to take any examination as scheduled normally shall result in automatic course failure. 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.

Assessment results

D149 At the conclusion of the assessments, and after presentation of the clinical or project reports, 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 SCIENCE IN IMPLANT DENTISTRY

DENT6022 Master of Science in Implant Dentistry

The Master of Science in Implant Dentistry is a course of study that is designed to enable practising dentists to acquire clinical training in dental implantology as a component of comprehensive dental care. Students must attend the Prince Philip Dental Hospital as prescribed by the Programme Director.

The prescribed course of study has a minimum of 600 hours of coursework and will include seminars, tutorials, case conferences, and clinical and laboratory work, together with study assignments.

Course Modules

This programme is aimed at comprehensive basic implant training for the general dental practitioners. All the components of the course are compulsory. Emphasis is placed on 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:

Clinical Practicum and Didactic Components (Total 550 hours)

1. Basic Sciences in Relation to Implant Dentistry (20 hours)

   This component of the course introduces the discovery of titanium implants. The research conducted by Professor Per-Ingvar Branemark on osseointegration forms the basis of modern implantology. Students will gain detailed knowledge of the implant/bone interface, bone histopathology, and the biomechanical aspects of implants. Evidence-based dentistry will be emphasised in relation to the longevity of implants and implant-supported prostheses.

2. Diagnosis and Treatment Planning (20 hours)

   Correct and accurate diagnosis and proper treatment planning are paramount in the delivery of implant therapy. The use of implants as a treatment option for the replacement of missing teeth and restoration of oral health, function, and aesthetics will be extensively explored.

3. Imaging (30 hours)

   The use of imaging is central to the evaluation of implant sites and the selection of implants. The application of panoramic radiographs and conventional plain films for screening will be augmented by the teaching of new tomographic techniques, including Scanora and CAT. The use of specialised computer software for treatment planning and fabrication of precision surgical templates will also be demonstrated.

4. Patient Selection (30 hours)

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

5. Presurgical Patient Preparation (60 hours)

   Students will be instructed how to formulate a treatment protocol, and discuss and liaise with surgical colleagues, dental nurses, and laboratory technicians. They will be guided to plan meticulously for the cases under their care, discuss the rationale for their treatment proposal with their supervisors, and obtain approval. A team approach is emphasised, and this philosophy should be adopted and practised throughout students' professional careers.

6. Surgical Aspects of Implantology (60 hours)

   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 surgery will be carried out and demonstrated by experienced surgeons in the field of implantology with the aid of modern audio-visual equipment. Students will have the opportunity to assist the surgeons in the installation of implants.

7. Restorative Aspects of Implantology (120 hours)

   Students shall 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 Implant-supported Prostheses (30 hours)

   This course deals with the regular review and maintenance of prostheses, particularly in relation to wear and mechanical failure of materials. Chairside and laboratory techniques will be demonstrated in the servicing of the prostheses.

9. Maintenance of Peri-implant Health (30 hours)

   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.

10. Diagnosis and Management of Peri-implant Biological Complications (20 hours)

    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.

11. Laboratory Techniques and CAD/CAM Technology (90 hours)

    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 (20 hours)

    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.

13. Advances in Implant Technology (20 hours)

    This component examines trends in the research and development of dental implantology. Students will be made aware of advances in immediate loading of implants, bone augmentation, and soft-tissue surgery. Image-guided surgery by use of the latest imaging technology and software will be discussed.

Clinical Paper or Project Report (120 hours)

The use of the dental literature and library facilities will be demonstrated. Under the guidance of supervisors, students are also required to submit a written report in a publishable format for a peer-reviewed journal through the presentation of a clinical paper, or collection of information and original data.

Directed Self-study

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. They are also encouraged to attend weekly Oral Health and Science Seminars held every Wednesday evening from 18:00 to 19:30 in Lecture Theatre I of the Prince Philip Dental Hospital to broaden their knowledge and be informed of the latest developments in other areas of dentistry.