

# University of Adelaide Dental School

DOCTOR OF CLINICAL  
DENTISTRY (Periodontics)

Course Description &  
Information for Candidates





## 1. INTRODUCTION

The University of Adelaide's graduate program in Periodontics is of three years duration and leads to the degree of Doctor of Clinical Dentistry (Periodontics). This is a specific program designed to lead to specialist registration in the field of periodontics. The course is a comprehensive program of international standing and is designed from the instructors' experience in graduate periodontics programs both in Australia and overseas. The course comprises a well balanced mix of didactic coursework, clinical work and a research project.

## 2. STAFFING

### Program Co-ordinator

Professor Mark Bartold BDS, BScDent(Hons), PhD, DDCSc, FRACDS(Perio)

### Teaching Staff

Dr Bryon Kardachi

Dr Paul McHugh

Dr David Drew

Dr Steve Soukoulis

Dr Martin Lao

## 3. PROGRAM AIMS & OBJECTIVES

### Aims

The DCLinDent (Periodontics) coursework program provides training in the clinical specialty of periodontics and periodontology. It permits the candidate to acquire advanced knowledge and skills in periodontics and periodontology. The program is designed to facilitate the advanced development of clinical, academic and research skills necessary for a graduate to further a career in academia, research or specialty practice.

### Objectives

- To provide a quality education in the specialist field of Periodontology
- Provide the scientific basis for successful clinical practice
- Develop an appreciation of scientific and research methodology
- Develop the necessary advanced clinical skills expected of a Specialist Periodontist

## 4. SELECTION REQUIREMENTS & PREREQUISITES

Applicants must hold a Bachelor degree in Dental Surgery or equivalent and have a minimum of two years clinical experience. Completion of the Primary examination of the Royal Australasian College of Dental Surgeons is required. In addition, FRACDS, an honours degree, graduate diploma, other higher degrees, continuing education and certificates will also be considered in the selection process.

## 5. AVAILABILITY OF THE COURSE

The number of places available each year in the periodontics training program is limited (being dependent upon the availability of teaching staff and resources).

## 6. PROGRAM REQUIREMENTS

### Program of Study and Research

A DClinDent program in periodontics involves a course of study comprising no less than three and no more than four years of full time study. Candidates must attend such seminars, tutorials, practical classes, courses, clinical work and other relevant programs as required by the supervisor. Candidates must prepare a cumulative log summarising the clinical work performed in the principal subject areas for presentation to the examiners at the interim and final examinations.

The program is divided into three principal components:

- Coursework
- Clinical work
- Research project

### Coursework

Didactic studies in a range of subjects will be carried out to provide the candidate with sufficient background in the basic biological and dental sciences. Tuition will be provided in the form of lectures, seminars, journal reviews and practical classes. Candidates must satisfactorily complete formal courses in:

- Research Methods, Experimental Design & Ethics
- Common topics in Dental Clinical Science
- Interdisciplinary Seminars in Clinical Dentistry

In addition to the above seminars, tutorials and self directed learning programs will require coverage of the following topics:

- Biology of the periodontium
- Microbiology and immunology of periodontal diseases
- Implantology
- Oral medicine/pathology
- Periodontal/restorative interrelationships

### Clinical Work

Clinical work will focus mainly on clinical periodontics and implantology. Students will be required to be rostered for 5 clinical sessions per week. Three of these sessions will be supervised and one will be unsupervised. In addition all students are required to participate in one undergraduate clinical teaching session per week.

### Research Project

All candidates are required to complete a research project which has relevance to periodontology. Generally, but not always, the project will be of a clinical nature. If however, no relevant clinical projects are in progress a research project in a field relating to the major research interests and

strengths of the school (extra cellular matrix biology and tissue regeneration) will be devised. In special circumstances, a candidate may be permitted to pursue a specific project outside of these fields but only if expert supervision can be secured and if the project has direct relevance to periodontology.

## 7. PROGRAM DETAILS

A specific program in periodontology has been devised to ensure a broad and liberal educational experience. All of the subjects, topics, clinics and research activity are considered mandatory for completion of the course.

### Coursework

#### *Compulsory Core Courses*

**Research Methods, Experimental Design & Ethics**  
**Common Topics in Dental Clinical Science**  
**Interdisciplinary Seminars in Clinical Dentistry**

### Compulsory Didactic Topics

#### **Biology of the Periodontium**

Year 1, Semester 1 - 1 hour seminar per week

This course will cover the basic cellular mechanisms in periodontal and pulpal tissues including the biology of the extracellular matrix, cell-cell and cell-substrate interactions and bone physiology. In addition various aspects of wound healing and tissue regeneration will be covered. The course runs once weekly over 13 weeks and includes seminars and preparation of a written assignment. Attendance at the weekly seminars is required. Presentation of a written report on a defined topic is also required. Assessment will be through course participation and assignment.

Specific topics covered are:

- Adhesion molecules and inflammation
- Cell attachment
- Innervation of the pulp
- Collagen structure and formation
- Proteoglycan structure and formation
- Extracellular matrix homeostasis
- Bone structure and function
- Bone resorption
- Wound healing
- Regeneration and growth factors

#### **Microbiology and Immunology of Periodontal Diseases**

Year 1, Semester 2 - 1 hour seminar per week

A series of seminar and literature review sessions will cover basic microbiology and immunology as they relate to the periodontal diseases. Specific topics to be covered will include structure and

formation of dental plaque, biofilms, innate and acquired immunity and clinical immunology. Assessment will be through seminar presentations and an assignment.

### **Clinical Oral Medicine/Clinical Oral Pathology**

Year 2, Semester 1 - 3 hour clinic per week

This clinical subject will expose student to clinical oral medicine and pathology in areas of specific relevance to periodontology. Weekly attendance at clinical sessions in Special Needs Clinic. Topics to be covered will include mucocutaneous lesions of the oral mucosa and periodontal tissues, medication induced changes to the tissues of the oral cavity, bacterial, fungal and viral infections, and salivary gland dysfunction. Assessment will be through attendance and participation in clinic sessions.

### **Periodontal Restorative Interrelationships**

Year 2, Semester 2 - 1 hour seminar per week

This subject will be concerned with the periodontal considerations of restorative dentistry. It will cover topics such as the biology of the gingival sulculus and epithelial attachment, preprosthetic surgery including tooth lengthening and ridge augmentation techniques, the periodontal aspects of traumatic occlusion in relationship to fixed and removable prosthetic appliances and periodontal/endodontic relationships. It will provide the candidate with a clear understanding of the interrelationship of other dental disciplines with periodontology. The course runs once weekly over 13 weeks and includes seminars and preparation of a written assignment. Assessment will be through course participation and assignment.

Specific topics covered are:

- Overhanging margins and periodontal destruction
- Diagnosis and management of split roots
- Diagnosis and management of resorptive defects
- Periodontal implications of fixed prosthodontics and implants
- Management of the endo-perio lesion
- Factors influencing the prognosis of root amputations and hemisections
- The role of preprosthetic and periodontal surgery
- Anterior aesthetics with relation to crown margins and gingival margins
- Ridge augmentation

### **Implantology for Periodontists**

Year 2, Whole Year - 1 Hour seminar per week & 3 hour clinic monthly

This is a seminar and clinic based course. Seminars will cover the fundamentals of implant design, clinical procedures and future developments. Clinic sessions will involve attendance in a multidisciplinary implant clinic for treatment planning and placement of osseointegrated dental implants. Assessment will be through seminar participation and clinical evaluation.

### Clinical Work

### **Clinical Periodontology I**

Year 1, Whole Year - Clinic: 5 x 3 hour clinic sessions per week, Teaching: 1 x 3 hour

undergraduate teaching session per week

This is the major clinical subject taken over the first year of tuition. It involves an introduction to clinical procedures, advanced clinical training, case presentations, journal reviews and seminars. The seminar topics run for one hour each week and students are expected to actively participate in these sessions by way of presentation and discussion. Assessment will be by written, clinical and viva voce examinations.

The clinical procedures covered include:

- Infection control
- Clinical photography
- Patient examination
- Patient charting
- Treatment planning
- Patient management
- Maintenance therapy
- Advanced conservative therapies
- Introduction to surgical techniques
- Introduction to implant surgery

Topics covered in this subject include:

- Natural history of periodontitis
- The dentogingival junction
- Diagnosis
- Treatment planning
- Prognosis
- Plaque formation
- Plaque monitoring
- Plaque control - mechanical, psychological and chemical
- Predisposing factors
- Modifying factors
- Chemotherapy
- Acute lesions affecting the periodontium
- HIV infection and the periodontium
- Localised juvenile periodontitis
- Surgical anatomy
- Basics of periodontal surgery
- Gingivectomy
- Flap surgery
- Mucogingival surgery
- Wound healing and regeneration
- Occlusion and the periodontium
- Occlusal adjustment, splinting
- Minor tooth movement and influence of parafunction

- Implants - osseointegration and peri-implant tissues
- Implants - peri-implantitis and supportive therapy

## **Clinical Periodontology II**

Year 2, Whole Year - Clinic: 5 x 3 hour clinic sessions per week, Teaching: 1 x 3 hour undergraduate teaching session per week

This is the major clinical subject taken over the second year of tuition. It involves a continuation of clinical procedures introduced and developed during the first year of the course. This subject involves advanced clinical training in periodontics, case presentations, journal reviews and seminars. The seminar topics which run for Clinical Periodontology I are available for attendance, should the candidate wish to review any of the fundamental topics covered in Clinical Periodontology I. The Journal reviews are designed to continue the processes developed in Clinical Periodontology I. These sessions run for one hour over the whole year. Students are expected to cover both the current periodontal literature as well as the "classic papers" of periodontology. Active participation in these sessions is a requirement. Case review sessions are run weekly and students are required to present their cases for discussion of management and treatment planning principles. Assessment will be continuous throughout the year and if required, either one or all of the following additional examinations: written, clinical and viva voce examinations. An introductory essential reading list is provided.

The clinical procedures covered include:

- Advanced surgical techniques
- Mucogingival surgery
- Regenerative periodontal surgery
- Placement of implant fixtures
- Interaction with other specialties (particularly endodontics, prosthodontics and orthodontics)

## **Clinical Periodontology III**

Year 3, Whole Year - Clinic: 5 x 3 hour clinic sessions per week, Teaching: 1 x 3 hour undergraduate teaching session per week

This is the major clinical subject taken over the third year of tuition. It involves a continuation of clinical procedures introduced and developed during the first two years of the course. This subject involves advanced clinical training in periodontics, case presentations, journal reviews and seminars. The clinical procedures covered include consolidation of topics covered in Clinical Periodontology I and II and some exposure to general oral surgical procedures in hospital settings. The seminar topics which run for Clinical Periodontology I and II are available for attendance, should the candidate wish to review any of the fundamental topics covered in Clinical Periodontology I and II. The Journal reviews are designed to continue the processes developed in Clinical Periodontology I and II. Students are expected to cover both the current periodontal literature as well as the "classic papers" of Periodontology. Active participation in these sessions is a requirement. Case review sessions are run weekly and students are required to present their cases for discussion of management and treatment planning principles. Assessment will be by written, clinical and viva voce examinations

## Research Project

This is designed to provide training in the developmental and practical elements of biomedical research. It fulfils not only the requirement for a research project, but is based on the philosophy of research as the basis of biomedical science. Students will be asked to evaluate published, current and future research as the basis of clinical practice with the expectation of research forming the platform for lifelong learning. A research report is to be submitted for examination as a formal part of the requirements for the degree of Doctor of Clinical Dentistry. The format for submission and rules are detailed in the appropriate School publications. Current research projects being undertaken include:

- Growth factors and periodontal regeneration
- Tissue engineering
- Clinical implantology
- Developmental aspects of the periodontium
- Epidemiology of the periodontal diseases
- Medication-induced gingival overgrowth
- Periodontal/systemic relationships

## **8. SAMPLE PROGRAM**

The following is provided as an example of how a program might be implemented for a course of study in the DCLinDent (Periodontics) degree.

Year 1, Semester 1	Seminars in Biology of the Periodontium
Year 1, Semester 2	Seminars in Microbiology & Immunology of Periodontal Diseases
Year 1, Whole Year	Clinical Periodontology 1, Research Project
Year 2, Semester 1	Oral Medicine/Clinical Oral Pathology Clinic
Year 2, Semester 2	Seminars in Periodontal Restorative Interrelationships
Year 2, Whole Year	Clinical Periodontology II, Seminars in Implantology for Periodontists, Common Topics in Dental Clinical Science, Research Project
Year 3, Whole Year:	Clinical Periodontology III, Interdisciplinary Seminars in Clinical Dentistry Research Project

Mid course examinations to be held June/July of second year of program.

Final examinations to be held at the end of third year of program.

## **9. REFERENCE MATERIAL**

### Textbooks

Bartold PM (editor). Periodontal Tissues in Health and Disease. *Periodontology 2000*, 2006, Vol 40.

Wilson TG, Kornman KS. Fundamentals of Periodontics (2nd edition). Quintessence, Illinois, 2003.

Bartold PM (editor). Connective tissues of the periodontium: Research and clinical ramifications. Munksgaard, Copenhagen, 2000.

Bartold PM & Narayanan AS. Biology of the Periodontal Connective Tissues. Quintessence Pub Co, Chicago, 1998.

Genco RJ, Goldman HM, Cohen DW. Contemporary Periodontics. Mosby, St Louis, 1990.

Lindhe J, Karring T, Lang NP (editors). Clinical periodontology and implant dentistry (4th edition). Blackwell Munksgaard, Oxford, UK, 2003.

Schluger S, Youdelis R, Page RC, Johnson RH. Periodontal Disease: Basic phenomena, clinical management, and occlusal and restorative interrelationships (2nd edition). Lea & Febiger, 1990.

Schroeder HE. Oral structural biology : embryology, structure, and function of normal hard and soft tissues of the oral cavity and temporomandibular joints. Thieme Medical Publishers, New York, 1991.

Williams DM, Hughes FJ, Odell EW, Farthing PM. Pathology of Periodontal Disease. Oxford University Press, Oxford, 1992.

### Journals

The following is a list of journals which are recommended as essential reading.

- International Journal of Periodontics and Restorative Dentistry
- Journal of Periodontal Research
- Journal of Periodontology
- Journal of Clinical Periodontology
- Journal of Oral and Maxillofacial Implants
- Clinical Oral Implants Research
- Journal of Oral Microbiology and Immunology
- Journal of Dental Research
- Archives of Oral Biology
- Community Dentistry and Epidemiology
- Periodontology 2000
- Journal of Dental Research/Critical Reviews in Oral Biology and Medicine
- Infection and Immunity
- Bone
- Calcified Tissue Research

## **10. ASSESSMENT PROCEDURES**

### Clinic

Continuous assessment of clinical work performed occurs on a day to day basis. Participation in journal reviews and seminar programs is also assessed. A pass in the clinical courses is required.

### Didactic Courses

Assessment is as described in the above details in section 8. A pass in each didactic subject studied is required.

### Research Project

The research project is assessed by the final examiners, and, in special circumstances, may be sent to an additional external examiner if the two appointed examiners do not have the necessary expertise to examine the research report. A pass grade is required.

### Annual Review of Progress

In line with University policy, progress is reviewed each year around September.

### Interim Examinations

The interim examinations are held half way through the course usually around June/July of the second year. These are specifically designed to provide feedback for students regarding their progress. A pass is required at this stage to progress into the second half of the program. If a satisfactory level is not achieved further remedial action will be taken and further examinations held at the end of the second year (around October/November of the second year). The interim examinations are considered formal examination and both internal and external examiners will be utilised. The format will usually consist of two 3-hour written examinations, a viva voce examination, case presentations and assessment of the candidates log book of treatment. All aspects of periodontics covered in the first 18 months of the program will be considered examinable.

### Final Examinations

The final examinations will be held at the end of the third year of the program (usually around October/November). These are the “exit” examinations leading to the award of the degree “Doctor of Clinical Dentistry” in association with the Royal Australasian College of Dental Surgeons. The format will consist of two 3-hour written examinations, a viva voce examination, case presentations and assessment of the candidates log book jointly examined by RACDS and University appointed examiners. All aspects of periodontics covered over the course of the program will be considered examinable.

In accordance with RACDS requirements, candidates must have completed the Primary Examination before enrolling in the College and applying for eligibility to sit the Final Examination.

## **11. APPLICATIONS**

Application forms and information are available from: <http://www.adelaide.edu.au/graduatecentre/policy/>

The application form serves as both an application for admission to a Higher Degree by Research and an application for scholarships held for study at the University of Adelaide (if eligible).

Use this form only if you are an Australian citizen, NZ citizen or if you have Permanent Resident status in Australia. Applicants must provide evidence of citizenship or permanent resident status at the time of lodging the application.

You are requested to notify the Graduate Centre of any change to the information contained in your original application, particularly any change of address or contact details.

Please contact the Graduate Centre if you have any questions concerning the application or if you

require further information.

Information for international applicants is available at: <http://www.international.adelaide.edu.au/apply/>

## 12. SELECTION PROCESS

As per RACDS requirements, applicants must have successfully passed their Primary examinations. The selection of candidates takes place during May/June in the year preceding commencement of the course. Potential candidates may be invited to attend an interview on a nominated date. Applicants are strongly advised to make themselves available for this interview. Under normal circumstances, applicants may expect to receive advice on the outcome of their application in August. Selection of candidates is competitive and is based on, academic records, experience since graduation, referees' reports and interview. Applicants who are selected will be required to commence the program in January or February of the following year.

## 13. ENROLMENT CONDITIONS

### Prescribed Communicable Infections

Students enrolled in clinical programs including the Doctor of Clinical Dentistry must be registered with the Dental Board of South Australia. Students with a prescribed communicable infection (Hepatitis B antigen and antibody, Hepatitis C antibody, and HIV/AIDS) will be unable to register with the Dental Board of South Australia, and are unable to complete the requirements of the program.

International applicants for Dental School clinical programs are required to provide the International Office and local applicants the Dental School with written evidence of their status in relation to Prescribed Communicable Diseases. Successful applicants may also be required to undertake a further test for Prescribed Communicable Infections upon commencement of the program. A full copy of the University's policy on prescribed communicable infections can be viewed at <http://www.dentistry.adelaide.edu.au>

### English

English is the language of instruction at the University of Adelaide and proficiency in speaking, listening to, reading and writing English is essential. International Applicants must have an International English Language Testing System score of at least 6.5 for entry to dental programs. The IELTS Academic Test, is the preferred English language proficiency qualification but the University may accept other evidence of proficiency in English in individual cases.

Students without an acceptable level of English will be required to satisfactorily complete an intensive course of English language before being allowed to study at the University of Adelaide. It may be possible to take an appropriate course before students leave their home country. More details available on <http://www.international.adelaide.edu.au/future/what/language/>

### Professional Registration

All candidates for the degree of Doctor of Clinical Dentistry must be registered with the Dental Board of South Australia. A dental graduate from universities other than Adelaide may, upon application, be granted full or limited registration by the Dental Board of South Australia for the duration of postgraduate studies dependant upon circumstances. The Dental school will provide successful applicants with Registration Application forms. The cost of registration is borne by the

student. Enquiries about registration with the Dental Board should be directed to:

The Registrar  
Dental Board of South Australia  
59 Fullarton Road  
KENT TOWN SA 5067  
Phone: 61 8 8364 5358  
Fax: 61 8 8364 5351

#### Radiation Licence

The Dental School will advise candidates with regard to licensing and will provide application forms. The cost of licensing will be borne by the student.

#### Dental Loupes and Eye Protection

Magnifying loupes are recommended. Safety glasses or face shield are mandatory in Dental Service clinics and University laboratories.

#### Computer and Photographic Equipment

It is expected that all candidates have their own laptop computer as this will be used regularly for presentation of seminars and case reports.

It is recommended that consideration be given to the purchase of a digital camera capable of taking macro photographs. Photographs should be taken of all stages of clinical cases for the preparation of the case logbook and for use in case reviews. Limited use of a departmental camera within the Colgate Dental Research Centre is available during Implant Clinics.

### **14. TUITION FEES**

All commencing higher degree by research places for Australian residents are funded by the Australian Government under the Research Training Scheme (RTS).

RTS places will be awarded to commencing students for a maximum period of two years full time equivalent for a masters student, and four years full time equivalent for a doctoral student. Confirmation of availability of a funded place for eligible students will be made at the time of admission. Fee for international applicants is \$25,000 per annum.

#### Scholarships

Applicants can apply for Postgraduate Research scholarships for full time study in the DClinDent. The funding opportunities in this area are limited and therefore extremely competitive. Information is available at <http://www.adelaide.edu.au/graduatecentre/scholarships/postgrad/>

### **15. ADDITIONAL EXPENSES**

During the course of study candidates may find that additional costs on top of their course fees may be encountered. These could include the cost of photocopying reference material, transportation and parking costs, membership of professional bodies such as the Australian Dental Association and Australian Society of Periodontology, the purchase of computer equipment and the purchase of photographic equipment.

## **16. PART-TIME EMPLOYMENT**

The DClinDent(Perio) course provides sufficient flexibility for the candidate to engage in some consultative work outside of the course of study. With prior approval from Professor Bartold, candidates may engage in some paid private dental practice, provided it does not interfere with the course of study.

## **17. RULES**

The program rules relating to the degree of Doctor of Clinical Dentistry are published in Part 2 of The University of Adelaide Calendar. Copies of the rules are also available from the School of Dentistry. Students are referred to the University of Adelaide Graduate Student website: <http://www.adelaide.edu.au/student/postgrad/>

## **18. CONTACTS**

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