

PROGRAMME SPECIFICATION



1	Awarding Institution	Newcastle University
2	Teaching Institution	Newcastle University
3	Final Award	Postgraduate Certificate
4	Programme Title	Postgraduate Certificate in Clinical Implant Dentistry
5	Programme Code	3429/ 3420
6	Programme Accreditation	Master's level Dentistry (2002)
7	QAA Subject Benchmark(s)	n/a
8	FHEQ Level	7
9	Last updated	13.11.09

10 Programme Aims

To provide dental practitioners and their teams with a training opportunity to develop the knowledge and skills to plan, treat, and maintain a range of straightforward* partially and fully edentate patients using dental implants.

* as defined by *Training Standards in Implant Dentistry, Annex B (2008)* published by the Faculty of General Dental Practice (UK) and endorsed by the General Dental Council (UK)

11 Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas.

Knowledge and Understanding

On completing the programme students should:

- A1 be able to accurately describe the surgical anatomy of the jaws
- A2 be able to describe the healing processes that take place following dento-alveolar injury and surgery, and describe the processes involved in hard and soft tissue integration of dental implants
- A3 be able to describe the reasons, why certain medical conditions, lifestyle factors and local pathological processes could preclude a patient from implant techniques or complicate treatment or maintenance of dental implants
- A4 know the main implant treatment options and their indications and contraindications, including options for fixed and removable implant prostheses and interim restorations
- A5 be familiar with the principles of prosthodontically driven implant planning
- A6 be aware of and be able to justify the use of appropriate pharmaceutical agents in the practice of implant dentistry
- A7 be able to explain the principles of implant surgery, including guided bone regeneration in relation to augmenting peri-implant tissue volume and rationale for infection control in relation to minor oral surgery
- A8 be able to describe the principles of the techniques used to restore implants including the application of dental materials science to the fabrication of implant restorations
- A9 be aware of the long-term maintenance requirements of implants and implant restorations in the light of biological or mechanical risk factors
- A10 be familiar with the law of consent as it relates to implant dentistry and the requirements for adequate documentation and communication of implant plans, risks, procedures, costings, and alternatives to implants

A11 demonstrate an awareness of the evidence base relating to implant and non-implant treatment options, and the historical scientific context of contemporary implant dentistry
A12 be aware of the challenges involved in introducing implant dentistry into a dental practice setting, including team development, processes, regulation, and fee setting

Teaching and Learning Methods

The Knowledge and Understanding referred to above are delivered mainly with lectures and seminars which enable students to question, discuss and check learning (A1-A11). For A3, A4, A5, A7-A10 case studies supplement teaching and learning. Anatomical specimens and electronic learning resources are used in the case of A1. Throughout the programme, students are encouraged to undertake independent reading. Essential material for independent learning is provided in the form of specific scientific papers, references to textbook chapters and electronic information sources. Each learning topic is evaluated by the student to help adapt both teaching and learning methods, and content to the student's needs.

Assessment Strategy

Formative assessment and feedback is provided in seminars (A1-A11). Summative assessment of knowledge is carried out by means of an MCQ (A1-A10). A written assignment at the end of Module 1 (Theory and Skills Training in Implant Dentistry) is also used to provide summative assessment of deeper understanding. The ability to apply knowledge and understanding to new situations (A1-A10). A12 is not assessed.

Intellectual Skills

On completing the programme students should be able to:

- B1 synthesise the information gathered in the history, examination and investigation processes to arrive at the correct diagnoses, including a considered prognosis of the remaining dentition
- B2 propose overall treatment options and formulate detailed plans of treatment for dental implant(s) in straightforward* cases, considering all options for tooth replacement in the context of the physical, psychological, functional, preventive, aesthetic, and financial requirements of the patient
- B3 recognise situations where complex* surgical or restorative procedures will be required, or where interface is required with other dental/medical disciplines
- B4 make an assessment of a patient's ability to tolerate all the procedures required for the provision of dental implant restorations and their maintenance, including the ability to modify the treatment plan if necessary
- B5 modify the treatment plan as required in order to achieve as satisfactory a result as possible in the light of unexpected developments during implant treatment, including implant malposition
- B6 formulate a plan for long-term maintenance of implants and specific types of implant restoration in the light of any pre-existing biological or mechanical risk factors

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Teaching and Learning Methods

The Intellectual Skills referred to are developed using case studies and problem based learning (B1-B6). Group activities in the cases of B2 and B5 help to stimulate shared problem solving, open discussion, and self evaluation. A question and answer approach is used in the clinical setting (B1-B6) which promotes thinking, helps the teacher check understanding, and assists the learner to seek clarification. Each learning topic is evaluated by the student to help adapt both teaching and learning methods, and content to the student's needs.

Assessment Strategy

Formative assessment of intellectual skills is provided in seminars and after case study discussions (B1-B6). Specific Case-based Discussion structured feedback proformas are used to provide formative assessment at the diagnosis and treatment planning stage (B1-B4) and when formulating a plan for long-term maintenance of implants (B6). A written assignment at the end of Module 2 (Clinical Skills Training and Practice in Implant Dentistry) is used to provide summative assessment of the Intellectual Skills referred to above. A written clinical case presentation is used to provide summative assessment of practical and intellectual skills.

Practical Skills

On completing the programme students should be able to:

- C1 complete and document a comprehensive clinical assessment, including thorough medical history, and request and interpret appropriate investigations in order to arrive at a diagnosis
- C2 effectively communicate to the patient the treatment options and procedures involved in order to allow the patient to make a decision, and to obtain valid consent prior to implant treatment
- C3 order fabrication of appropriate surgical templates
- C4 select and administer the appropriate form of anaesthesia and manage patient anxiety (NOT including the administration of conscious sedation)
- C5 maintain infection control and follow an appropriate aseptic surgical protocol
- C6 safely extract failing teeth using minimal trauma techniques and dedicated instruments
- C7 carry out and document safe and effective implant surgery according to a predetermined plan, including simultaneous minor soft tissue augmentation and manipulation to optimise peri-implant soft tissue conditions
- C8 perform the techniques involved in harvesting bone from oral sites for minor augmentation during implant placement (NOT including block bone grafts or sinus floor augmentation), and carry out guided bone regeneration, including the use of bone substitutes and barrier membranes
- C9 manage the more common intra-operative and post-operative complications and provide postoperative care and advice
- C10 carry out and document all restorative procedures involved in provision of straightforward* implant supported restorations, including provision and adjustment of interim restorations and effective communication with the dental laboratory
- C11 plan and instigate an appropriate maintenance and re-evaluation programme

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Teaching and Learning Methods

Practical Skills C1, C2, C4-C10 are taught by demonstration of clinical skills, structured observation and one to one coaching. C7 and C8 are introduced in the clinical skills laboratory with simulation exercises using artificial jaws and cadaver animal material. Acquisition of skills (C1-C11) is consolidated by experiential learning from patients in the clinical setting, and a question and answer approach is used that promotes thinking, helps the teacher check understanding, and assists the learner to seek clarification. Video analysis is used in the clinical setting to help teach C7 and C8 and encourage learning by reflection. Peer review is used to evaluate treatments at the planning, surgical and restorative stages of treatment (C2, C7, C8, C10, C11). Delivery of C3 is introduced with a seminar and case studies. The student learns from unexpected events from incident analysis (C9). Students complete a logbook of treated cases which assists in and encourages reflective learning.

Assessment Strategy

Specific Case-based Discussion structured feedback proformas are used to provide formative assessment at the diagnosis and treatment planning stage (C1, C2), at the completion of treatment stage (C10) and when formulating a plan for long-term maintenance of implants (C11). Skills simulation exercises are assessed summatively and provide instant formative feedback using specific Direct Observation of Procedural Skills proformas (C7, C8) and clinical surgical skills are assessed summatively using a specific Procedure Based Assessment form. A written clinical case presentation is used to provide summative assessment of practical and intellectual skills.

Transferable/Key Skills

On completing the programme students should be able to:

- D1 maintain good clinical records
- D2 undertake effective oral communication with patients, nursing staff, supervisors and peers
- D3 understand informed consent to treatment
- D4 know how to source and critically appraise the scientific literature

Teaching and Learning Methods

Good practice in clinical record keeping and consent (D1-D3) are developed by lectures informing the legal requirements, case studies in seminars and by demonstration of clinical skills, structured observation and one to one coaching in the clinical setting. D4 is delivered using seminars and self directed on-line packages. Each learning topic is evaluated by the student to help adapt both teaching and learning methods, and content to the student's needs.

Assessment Strategy

Record keeping (D1) is formatively assessed as a criterion of the specific Case-based Discussion structured feedback proformas. D2 is assessed summatively as a specific criterion within the Procedure Based Assessment of surgical skills. D3 is assessed summatively by means of an MCQ. D4 is assessed summatively by the written assignment.

12 Programme Curriculum, Structure and Features**Basic structure of the programme**

The programme will run over 18 months. DCI8001 will run over the first 6 months and DCI8002 will run over next 12 months.

The programme consists of two modules: DCI8001- Theory and Skills Training in Implant Dentistry (20 Credits), DCI8002 - Clinical Skills Training and Practice in Implant Dentistry (40 Credits) comprising Clinical patient assessment (supervised clinical practice) Surgical placement of implants (supervised clinical practice), Restoration of implants (supervised clinical practice and case review).

The programme is designed to be delivered as one continuous programme. Both modules are compulsory. Students must successfully complete the theory-based DCI8001 in order to progress to the subsequent clinically-based material in DCI8002.

Key features of the programme (including what makes the programme distinctive)

Part-time delivery in day blocks to enable “day release” of dental practitioners in full-time employment.

Patients treated by programme participants remain the responsibility of supervising Consultants at Newcastle Dental Hospital. Participants must have been granted Clinical Access to Newcastle Dental Hospital by the Newcastle Hospitals NHS Foundation Trust

Under close supervision during DCI8002 of the programme, individual patients are treatment planned, implanted and restored by a named participant. This will provide a continuous learning experience and consistency of care for patients.

The programme will appeal to dentist and their teams looking to establish implant dentistry into the portfolio of services they offer to patients, at the straightforward* level.

The programme provides good preparation for dentists planning to sit the Diploma in Implant Dentistry at the Royal college of Surgeons of Edinburgh

Dental Nurses (registered with the General Dental Council [UK]) are strongly encouraged to accompany respective Dentist participants. This will support the delivery of the curriculum (Module 2) and provide nurses with an opportunity to secure the verifiable CPD (non-university accredited) they require in order to remain registered with the General Dental Council [UK].

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Programme regulations (link to on-line version)

<http://www.ncl.ac.uk/regulations/programme/>

13 Criteria for admission*Entry qualifications*

A candidate may be entered for the certificate at the discretion of the Degree Programme Director and provided that such a candidate:

- (a) has successfully completed the Bachelor of Dental Surgery or equivalent; and
- (b) has successfully completed two years of Dental Foundation Training or equivalent postgraduate training; and
- (c) has full registration with the General Dental Council (UK)

Admissions policy/selection tools

Applicants who are short listed on the basis of an application form will be invited to attend for interview with the Degree Programme Director and another senior clinical member of the programme delivery team.

Non-standard Entry Requirements

Applicants will be required to comply with the requirements of Clinical Access to Newcastle Dental Hospital, and the dress code and infection control policies and procedures.

Additional Requirements

Preference will be given to applicants who have been awarded the Diploma of Fellowship or Membership in Dental Surgery of one of the United Kingdom Royal Colleges (FDS, MFDS, MJDF) and who can demonstrate that they have acquired additional minor oral surgical experience (e.g. have held a training grade post in oral surgery or maxillofacial surgery).

Applicants will be required to confirm attendance of a General Dental Council [UK] registered accompanying dental nurse to the surgical and restorative sessions which take place during part of module 2. If students registered on the course are unable to provide their own nursing support, there will be an additional cost for the supply of clinical nursing support.

Level of English Language capability
IELTS 7 (or equivalent)

14 Support for Student Learning

The Student Services portal provides links to key services and other information and is available at: <http://www.ncl.ac.uk/students/>

Induction

During the first day of the first module students attend an induction programme. New students will be given a general introduction to the University and the University's principle support services and general information about the School and their programme, as described in the Degree Programme Handbook. Students will be given detailed programme information and the timetable of lectures/practicals/clinical sessions etc.

Academic support

The initial point of contact for a student is with the Tutor or Module Leader and thereafter the Degree Programme Director. Issues relating to the programme may be raised at the Curriculum Committee.

Pastoral support

All students are assigned a personal tutor (a member of the Programme Team) whose responsibility is to monitor the academic performance and overall well-being of their tutees. In addition the University offers a range of support services, including one-to-one counselling and guidance or group sessions / workshops on a range of topics, such as emotional issues e.g. Stress and anxiety, student finance and budgeting, disability matters etc. There is specialist support available for students with dyslexia and mental health issues. Furthermore, the Union Society operates a Student Advice Centre, which can provide advocacy and support to students on a range of topics including housing, debt, legal issues etc.

Support for students with disabilities

The University's Disability Support Service provides help and advice for disabled students at the University - and those thinking of coming to Newcastle. It provides individuals with: advice about the University's facilities, services and the accessibility of campus; details about the technical support available; guidance in study skills and advice on financial support arrangements; a resources room with equipment and software to assist students in their studies.

Learning resources

The University's main learning resources are provided by the Robinson and Walton Libraries (for books, journals, online resources), and Information Systems and Services, which supports campus-wide computing facilities.

15 Methods for evaluating and improving the quality and standards of teaching and learning

Module reviews

All modules are subject to review by questionnaires which are considered by the Curriculum Committee. Student opinion is sought at the Curriculum Committee. Changes to, or the introduction of new, modules are considered at Curriculum Committee and then reviewed and approved by the Board of Studies. New modules and major changes to existing modules are subject to approval by the Faculty Teaching and Learning Committee.

Programme reviews

The Board of Studies conducts an Annual Monitoring and Review of the degree programme and reports to Faculty Teaching and Learning Committee. The FTLC takes an overview of all programmes within the Faculty and reports any Faculty or institutional issues to the University Teaching and Learning Committee.

External Examiner reports

External Examiner reports are considered by the Curriculum Committee and Board of Studies. The Board responds to these reports through Faculty Teaching and Learning Committee. External Examiner reports are shared with institutional student representatives,

Student evaluations

All modules, and the degree programme, are subject to review by student questionnaires. Informal student evaluation is also obtained at the Curriculum Committee. The results from student surveys are considered as part of the Annual Monitoring and Review of the programme and any arising actions are captured at programme and School / institutional level and reported to the appropriate body.

Mechanisms for gaining student feedback

A student representative will be invited to attend Curriculum Committee and students will be given the opportunity to present student feedback at Curriculum Committee.

Faculty and University Review Mechanisms

The programme is subject to the University's Internal Subject Review process. Every five years degree programmes in each subject area are subject to periodic review. This involves both the detailed consideration of a range of documentation, and a two-day review visit by a review team which includes an external subject specialist in addition to University and Faculty representatives. Following the review a report is produced, which forms the basis for a decision by University Teaching and Learning Committee on whether the programmes reviewed should be re-approved for a further five year period.

16 Regulation of assessment

Pass mark

The pass mark from summative assessments for each module is 50. In order to pass a module, each assessment component within the module must have been passed. In addition, in order to pass a module, it is necessary to have achieved a pass in the areas assessed summatively using Direct Observation of Procedural Skills (used in Module 1 [DCI8001]) and Case Based Discussion tools (used in Module 2 [DCI8002]), and Level 3 or above in areas assessed using Procedure Based Assessment tools (used in Module 2 [DCI8002]).

Course requirements

Progression is subject to the University's Masters Degree Progress Regulations, Taught and Research and Examination Conventions for Taught Masters Degrees. Both modules are core and therefore must be passed. A student must pass DCI8001 before DCI8002 is commenced.

In the event of students failing assessments, there will be opportunity to be re-assessed in all components of all modules.

The University employs a common marking scheme, which is specified in the Taught Postgraduate Examination Conventions, namely:

Summary description applicable to postgraduate Masters, Diploma and Certificate programmes

50	Fail
>50	Pass

Candidates who achieve an overall mark of 60% across the programme will be awarded the Certificate with Merit and candidates who achieve an overall mark of 70% will be awarded the Certificate with Distinction.

Role of the External Examiner

An External Examiner, a distinguished member of the subject community, is appointed by Faculty Teaching and Learning Committee, following recommendation from the Board of Studies. The External Examiner is expected to:

- i. See and approve assessment papers
- ii. Moderate examination and coursework marking
- iii. Attend the Board of Examiners
- iv. Report to the University on the standards of the programme

In addition, information relating to the programme is provided in:

The University Prospectus: <http://www.ncl.ac.uk/postgraduate/>

The School Brochure

Degree Programme and University Regulations: <http://www.ncl.ac.uk/regulations/docs/>

The Degree Programme Handbook

Please note. This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the learning opportunities provided. The accuracy of the information contained is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

Mapping of Intended Learning Outcomes onto Curriculum/Modules

Module	Type	Intended Learning Outcomes			
		A	B	C	D
1 DCI8001	compulsory	A1-A11	B3,B4	C7	D2, D3
2 DCI8002	compulsory	A12	B1-B6	C1-11	D1