	PROGRAMME SPECIFICATION	Newcastle University

1	**Awarding Institution**	Newcastle University
2	**Teaching Institution**	Newcastle University
3	**Final Award**	Postgraduate Certificate
4	**Programme Title**	Postgraduate Certificate in Clinical Endodontics
5	**Programme Code**	3047P
6	**Programme Accreditation**	
7	**QAA Subject Benchmark(s)**	Masters level Dentistry 2002
8	**FHEQ Level**	7
9	**Last updated**	March 2010

10	**Programme Aims**

To provide primary-care dentists in the NHS, university, corporate and private sectors with enhanced skills and knowledge in clinical endodontics. The Certificate programme aims to meet the Department of Health/Faculty of General Dental Practice/Royal College of Surgeons of England (2006) competency framework for Dentists with Special Interest in Endodontics.
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4133752.pdf
On completion of the programme, students will be able to:

- Recognise if a diagnosis is out-with their competence and describe appropriate referral procedures.
- Accurately judge when and when not to intervene in a clinical situation and recognise when help or referral is required.
- Diagnose, plan and carry out non-surgical root canal treatment for vital and non-vital *de novo* cases on teeth of moderate difficulty as defined by American Association of Endodontists' Endodontic case difficulty guidelines (www.aae.org/dentalpro/guidelines.htm)
- Diagnose and plan the need for surgical root canal treatment for teeth of moderate difficulty.
- Use appropriate technologies consistent with the management of endodontic cases of moderate difficulty.
- Use appropriate magnification and illumination in the management of surgical and non-surgical cases of moderate difficulty.
- Carry out non-surgical root canal re-treatment including the management of iatrogenic damage to the root canal system for teeth of moderate difficulty.
- Manage teeth that have sustained trauma.
- Provide appropriate coronal restorations for the root filled tooth or provide detailed advice to other clinicians for such restoration.
- Monitor and evaluate clinical outcomes of all forms of endodontic treatment using recognised clinical and radiographic guidelines.
- Communicate effectively within clinical networks.
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11	**Learning Outcomes**

The programme provides opportunities for students to develop and demonstrate knowledge, understanding and skills in the domains described below.. The programme outcomes have references to the benchmark statements for Dentists with Special Interest (DwSIs) in Endodontics (*).

Knowledge and Understanding

On completing the programme students should be able to:
A1: describe the centrality of infection control in the successful management of endodontic disease.

A2: select and criticise clinical strategies for the control of endodontic infection in practice*..
A3: describe and criticise the limitations of current measures in endodontic diagnosis, prognostication and treatment planning.*
A4: describe contemporary dilemmas in the assessment of endodontic outcome.
A5: discuss the principles of contemporary best practice in the management of dental trauma.*
A6: discuss the principles of contemporary best practice in paediatric endodontics.
A7: describe different levels of evidence in the clinical/scientific literature.

Teaching and Learning Methods

The programme comprises of two 10 credit clinical simulation modules (DCE8001 and DCE8002) and one 40 credit clinical module (DCE8003).

The learning outcomes (A1-A7) are delivered in a 4 day block by a mixture of lectures/seminar-style discussions, practical demonstrations, hands-on practical work and feedback/case discussion in 1:1 and group format. There is also extensive pre-module reading taken from sources of differing levels of scientific evidence. The clinical module will include the supervised management of new patients for diagnosis/treatment planning, short cases for 'troubleshooting' activity, including canal location, removal root filings etc, full treatment of referred cases from general practice and the review of previously treated patients (A1-A7). Clinical activity will be supplemented by case discussion in 1:1 and group format, and by further reading/discussion of current and classic literature relevant to clinical activity (A1-A7).

Assessment Strategy

Modules DCE8001 and DCE8002 will include the assessment of knowledge and understanding by:
- Formative assessment of participation/evidence of understanding in seminar-style discussion (A1-7)
- Completion of two short Extended Matching Items (modified MCQ) papers in each module for summative assessment of factual knowledge (A1-7)
- Completion of one 1000 word written assignment in each module for summative assessment of knowledge and deeper understanding (A1-7)

Module DCE8003 will include the assessment of knowledge and understanding by:
- Formative assessment of clinical activity in diagnosis, patient treatment and information exchange with patients, colleagues and referring dentists (A1-7).
- Completion of proforma-based observations on clinical activity [Mini Clinical Evaluation Exercises (min-CEX), and Direct Observation of Procedures (DOPS) (A1-7)]. Progression will be dependent upon the successful completion of pre-defined proforma-based assessments, with the opportunity to repeat exercises until a satisfactory standard is achieved.
- Completion of two 1000 word written assignments for summative assessment of knowledge and deep understanding (A1-7)
- Presentation of a reflective clinical portfolio documenting 4 cases managed within the programme (A1-7)

Intellectual Skills

On completing the programme students should be able to:
B1: differentiate between different levels of evidence in the published literature.
B2: criticise published reports in terms of rigor and clinical transferability.
B3: justify clinical actions in the face of scientific uncertainty.

Teaching and Learning Methods

All modules (DCE8001, DCE8002, DCE8003) will include extensive prescribed reading, with discussion and critical evaluation in seminar-format (B1-B2). Clinical simulation modules (DCE8001 and DCE8002) and the clinical module (DCE8003) will place clinical simulation exercises within the context of evidence-based practice, with constant reflection on decision-making and action within the context of best current evidence (B1-B3). The written assignments in each module and the clinical case portfolio in DCE8003 will direct students to reflect on their views and actions within the context of best evidence (B1-B3).

Assessment Strategy
Intellectual skills will be assessed in clinical simulation modules DCE8001 and DCE8002 by: • Evaluation of participation in seminar-style discussion with formative feedback (B1-3). • Evaluation of case-based activity within practical classes with formative feedback (B1-3) • Summative assessment of evidence within written assignments (B1-2). Intellectual skills will be assessed within clinical module DCE8003 by: • Evaluation of clinical decision-making action and communication with formative feedback (B1-3). • Summative assessment of two 1000 word written assignments (B1-2) • Summative assessment of a clinical case portfolio (B3).
Practical Skills
On completing the programme, students should be able to: C1: source evidence to support best practice. C2: undertake a detailed clinical examination, diagnosis and treatment plan for patients attending with a range of endodontic needs. C3: communicate effectively with patients on treatment options and prognoses.* C4: demonstrate the skills to undertake primary and re-root canal treatment to a high standard in cases of moderate[1] complexity.* C5: demonstrate the skills undertake endodontic surgical procedures of moderate[1] complexity.* C6: communicate effectively with referring dentists on follow-up care and prognosis.* C7: keep good clinical records. [1] *American Association of Endodontists Endodontic Case Difficulty Assessment Guidelines (available from American Association of Endodontists website at* www.aae.org/dentalpro/guidelines.htm
Teaching and Learning Methods
Modules DCE8001 and DCE8002 will include the discussion of selected literature, and extensive simulated clinical practice in a dedicated clinical skills facility, with video and live demonstrations and observed/assisted practice (C1, C4, C5). Module DCE8003 will include supervised clinical practice on referred patients. All modules will include 1:1 input and group work (C1-C7).
Assessment Strategy
Practical skills will be assessed in clinical simulation modules DCE8001 and DCE8002 by: • Proforma-based direct observation of procedural skills (DOPS) (C4-5). Progression will be dependent upon the successful completion of pre-defined DOPS, with the opportunity to repeat exercises until a satisfactory standard is achieved. Practical skills will be assessed in clinical module DCE8003 by: • Proforma-based DOPs and mini-clinical evaluation exercises (C2-7). Progression will be dependent upon the successful completion of pre-defined proforma-based assessments, with the opportunity to repeat exercises until a satisfactory standard is achieved. • Assessment of a clinical case portfolio (C1, 2, 4-7).
Transferable/Key Skills
On completing the programme students should be able to: D1: maintain clear and accurate clinical records. D2: understand informed consent D3: recognise cases beyond their competence.* D4: communicate effectively with members of the dental team and referring colleagues. D5: source and critically appraise scientific articles.
Teaching and Learning Methods
Clinical simulation modules DCE8001 and DCE8002 will include the discussion of scientific literature in seminar format and practical exercises with the opportunity to reflect on case complexity (D3,D5). The clinical module DCE8003 will include further discussion of selected literature and

supervised clinical practice where issues of case assessment, patient consent, good record-keeping and effective communication will be paramount (D1-D5).

Assessment Strategy

Transferrable/Key skills will be assessed in clinical simulation modules DCE8001 and DCE8002 by:
- Formative feedback on seminar participation (D3, 5).
- Summative assessment of written assessments (D5).

Transferrable/Key skills will be assessed in clinical module DCE8003 by:
- Proforma–based DOPS and mini-clinical evaluation exercises (D1-4). Progression will be dependent upon the successful completion of pre-defined proforma-based assessments, with the opportunity to repeat exercises until a satisfactory standard is achieved.
- Assessment of a clinical case portfolio (D1-4).
- Assessment of written assignments (D4, 5).

12	Programme Curriculum, Structure and Features

Basic structure of the programme

The programme comprises three modules:

Module DCE8001 (clinical simulation): Primary root canal treatment.

Module DCE8002 (clinical simulation): Management of post-treatment disease, update on paediatric endodontics and traumatology.

Module DCE8003 (clinical): Clinical endodontics

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

The modular format provides flexible training opportunities:
- For dentists who wish to update their knowledge and skills and gain CPD plus validated academic credit from clinical simulation modules only,
- For dentists to progress from clinical simulation modules DCE8001 and DCE8002 and translate/develop their skills further through supervised clinical practice (DCE8003).
- For dentists to work alongside their own dental nurses in clinical simulation and clinical modules to develop team understanding and team working..

Programme regulations (link to on-line version)

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

13	Criteria for admission

Entry qualifications

CPD study (DCE8001 or DCE8002) or the PG Certificate (DCE8001, DCE8002 and DCE8003) is open to registered dental practitioners who have an interest in clinical endodontics. Applicants must:

(i) have successfully completed the Bachelor of Dental Surgery or equivalent; and

(ii) have successfully completed two years of Dental Foundation Training or equivalent postgraduate training; and

(iii) have full registration with the General Dental Council (UK)

Module DCE8003 (clinical):
Completion of modules DCE8001 and DCE8002.
In exceptional circumstances, consideration may be given to candidates with evidence of Approved Prior Learning equivalent to that expected from DCE8001 and DCE8002. Evidence would take the form of verifiable learning outcomes and certificates of completion from equivalent taught programmes. In addition, candidates may be invited to attend for interview, at which documentary evidence would be presented, in addition to a portfolio of cases managed in practice.
Full compliance with Trust regulations for clinical access, including:

- Health/immunisation status
- CRB checks
- Professional indemnity

Admissions policy/selection tools
Students wishing to register for all three modules DCE8001, DCE8002 and DCE8003 will be given priority.

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 experience in clinical endodontics.

Candidates may be interviewed to assess interest and commitment to the programme and evidence of interest/experience in Endodontics.

Students applying to DCE8003, with evidence of previous experience/training elsewhere: Consideration will occasionally be given to Accredited Prior Learning where students can provide evidence of clinical simulation training/experience elsewhere. Information to be considered will include: details of training undertaken with dates, content and learning outcomes, evidence of satisfactory completion, plus evidence of clinical cases managed in practice.

Non-standard Entry Requirements
none

Additional Requirements
none

Level of English Language capability
The programme requires students whose first language is not English to have a minimum IELTS score of 7.0 with no individual sections lower than 6.5 or equivalent.

14   Support for Student Learning

The Student Services portal provides links to key services and other information and is available at: *https://my.ncl.ac.uk/students/*

Induction
During the first week of the first semester students will attend an induction programme. In addition, they will have the opportunity to meet the Programme Director and staff involved in the delivery of the programme, to familiarise themselves with the programme structure, library, university resources and ILT resources. In addition, the Programme Handbook provides a comprehensive introduction to the curriculum, the programme structure and the academic support available.
New and continuing students will be given detailed programme information and the timetable of seminares/practicals/etc. The International Office offers an additional induction programme for overseas students.

Study skills support

A range of study skills information, guidance and directed learning is offered by the university and students are signposted to these in the Programme Handbook. Information on study skills, how guidance can be accessed and how they will be utilised within the modules are covered in the Induction session. See:
http://www.ncl.ac.uk/library/teaching/stan/

Academic support

The initial point of contact for all students is the Degree Programme Director. Issues relating to the programme may additionally be raised at the Curriculum Committee by student representatives. Student representatives will be appointed for each academic year and attendance at Curriculum Committees will be encouraged. Opportunities for virtual attendance through Video Conferencing, Skype or similar will be explored in the event that personal attendance is difficult.

Pastoral support
A personal tutor will be allocated from within the programme team. In addition the University offers a range of support services, including the Student Advice Centre, the Counselling and Wellbeing team, the Mature Student Support Officer, and a Childcare Support Officer. Access to these services are signposted to the student in the Programme Handbook and on the Blackboard VLE. See*: (*http://www.unionsociety.co.uk/main/advice/studentadvicecentre ,
(http://www.ncl.ac.uk/counselling-wellbeing/
http://www.ncl.ac.uk/support/welfare.phtml

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. Access to these services are signposted to the student in the Programme Handbook. See: http://www.ncl.ac.uk/disability-support/

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. Access to these services are signposted to the student in the Programme Handbook and on the Blackboard VLE. The Graduate School offers a student learning space with dedicated on-line computer facilities, a number of study rooms and social space for interaction with other postgraduate students. See:
http://www.ncl.ac.uk/library/
http://www.ncl.ac.uk/iss/

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

Module reviews
All modules are subject to review at Curriculum Committee. The review of modules is informed by student feedback, both formal and informal, student performance, developments favoured by the DPD or recommendations made by External Advisors.
Amendments to existing modules or the introduction of new modules are subject to approval by the Graduate School Board of Study and the Faculty Teaching and Learning Committee.

Programme reviews
The Curriculum Committee conducts an Annual Monitoring and Review of the programme which critically reviews all aspects of the provision delivery, defines improvement opportunities to be progressed and reports to Graduate School Board of Studies and Faculty Teaching and Learning Committee.

External Examiner reports
External Examiner reports are considered by the Curriculum Committee and Graduate School Board of Studies. The Board responds to these reports through Faculty Teaching and Learning Committee who ensure that any action or recommendations made in the report are appropriately actioned. External Examiner reports are shared with institutional student representatives, through the Curriculum Committee.

Student evaluations

All modules, and the complete programme, are subject to review by student evaluation using a series of questionnaires to obtain student opinion and feedback. Informal student evaluation is also obtained during delivery, at Curriculum Committee.

Mechanisms for gaining student feedback
The programme has a Curriculum Committee at which students may address concerns, issues or recommendations relating to the programme to the Programme Team. Students may also feed back concerns, issues or opinions to the DPD or the Administration Team in the PGT Office.

Faculty and University Review Mechanisms
The programme is subject to the University's Internal Subject Review process, see http://www.ncl.ac.uk/aqss/qsh/internal_subject_review/index.php

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16   Regulation of assessment

Pass mark
The programme pass mark is 50. The student must achieve a satisfactory standard in proforma-based skils assessments within DCE8001, DCE8002 and DCE8003 in order to progress, and achieve a pass mark of 50 for each component within the assessment of the modules.

Normally, a student will pass DCE8001 and DCE8002 before DCE8003 is commenced.

Programme requirements

Progression is subject to the University's Masters Degree Progress Regulations, Taught and Research (http://www.ncl.ac.uk/calendar/university.regs/tpmdepr.pdf) and Examination Conventions for Taught Masters Degrees (http://www.ncl.ac.uk/calendar/university.regs/tpmdeprexamconv.pdf). Students who fail individual pieces of course work will be allowed to resubmit for a second assessment on one occasion only. All modules are core and compensation regulations do not apply.

Common Marking Scheme

The Certificate is classified in line with the University common marking scheme for Taught Postgraduate Masters programmes:

<50   Fail
50-59   Pass
60-69   Pass with Merit
70 or above   Pass 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, after recommendation from the Board of Studies. The External Examiner is expected to:
        review and approve examination papers
        moderate examination and coursework marking
        attend the Board of Examiners
        report to the University on the standards of the programme

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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**
DCE8001	Core	1-6, 12-14	1-4	1	1
DCE8002	Core	2,3,5,9-14	1-4	1,4,5	1,3
DCE8003	Core	3,4,7-10, 12-14	1-4	1-6	1-5