

MSc in Restorative Dentistry

Programme Specification

24.05.04

1	Awarding Institution	The University of Newcastle upon Tyne
2	Teaching Institution	The University of Newcastle upon Tyne
3	Final Award	MSc in Restorative Dentistry
4	Programme title	MSc in Restorative Dentistry – 2 year Programme
5	Programme Accredited by:	N/A
6	UCAS Code	N/A
7	QAA Subject Benchmarking Group(s)	N/A
8	Date of production/revision	24/05/04

9 Programme Aims:

The aim of the course is to enable dentists to acquire advanced skills and knowledge in the field of Restorative Dentistry. The course is designed to provide the foundations for:

- Enhanced general dental practice
- Specialist practice (overseas)
- Specialist training in Restorative Dentistry (the first 2 years of a 5 year programme)
- Specialist training in the Restorative Monospecialities of Endodontology, Periodontology and Prosthodontics (the first two years of a four year programme)
- Clinical academia
- Community Dental Services

Specifically, the course aims to provide:

1. Clinical and laboratory practice involving treatment planning, clinical procedures and technical work for Restorative cases requiring both routine and complex treatments
2. An evidence base for Restorative Dentistry
3. Applied research within Restorative Dentistry (a trainee on a Monospeciality programme would be expected to carry out a project within that area of interest)

The course may be taken either full-time or part-time. Part-time students must work in practice, hospital, community services or armed forces and be able to submit clinical work carried out in practice as part of their course requirements. They are expected to spend at least 50% of the two years on Faculty premises (normally 3 days a week in year 1 and 2 days a week in year 2).while Monospeciality Trainees would be expected to spend 3 days a week in years 1,2,3 and 4. Further details are contained in the Monospeciality Programme guides.

10(a) Programme Intended Learning Outcomes:

A Knowledge and understanding

- 1 An advanced knowledge and understanding of the literature within restorative dentistry.
- 2 A broad knowledge of subjects directly related to restorative dentistry
- 3 A working knowledge of research methodology and statistical techniques
- 4 A full appreciation of the mechanisms of clinical audit

Teaching strategy

Teaching for A1 and A2 is mainly by pre-arranged seminars (112 in total) which are completed during the first year of the course. Each seminar has a structured reading list prioritised where necessary into essential and recommended reading. These lists are reviewed annually. There is a compulsory 16 session MD/PhD research course (A3) and students are expected to attend the Dental Hospital Clinical Audit meetings (A4).

Learning strategy

Students are expected to have read up for each seminar and to engage in seminar discussion.

Assessment strategy

A1,2 are assessed at the end of the first year by an essay and a short answer paper. Practice questions are set in the run-up to the written examination.

B Subject-specific/professional skills

- 1 The ability to diagnose and formulate appropriate treatment options including an organised sequence of delivery
- 2 The ability to assess prognosis of the preferred treatment option based on clinical outcome studies and audit
- 3 The ability to recognise the need for continuous reassessment of patient response as treatment progresses
- 4 The ability to undertake restorative treatment to advanced standards
- 5 The ability to formulate a clear laboratory prescription, understand the technical procedures involved and actively participate as appropriate in the laboratory work
- 6 The ability to specify or provide an appropriate maintenance programme based on risk assessment
- 7 The ability to treat patients with respect and without prejudice
- 8 The ability to appreciate your limitations and to take advice or refer a patient when appropriate

Teaching strategy

Patients are allocated for treatment under supervision, requiring increasingly complex work as the course progresses.

Diagnostic clinics are timetabled specifically for full time students and are available to part-time students.

There are three clinical skills courses; one in conservation and fixed prosthodontics, the second in endodontics and the third in removable partial dentures. A complete denture seminar series is linked with clinical cases at the start of the second year. Formal courses scheduled in Occlusion and restorations, reorganised occlusion and splint treatment and TMD management are completed by the end of the first year.

Learning strategy

Students are expected to develop a full treatment plan including sequencing and prioritisation this will include where necessary mounting, adjusting and waxing stone casts. There is a plenary session at the start of each clinical session to allow students to explain and justify proposed activity

Assessment strategy

Student performance is assessed for each patient management session. Feedback by teachers is given at the end of each session and agreed grades recorded reflecting clinical work, patient management, professional ability and, where appropriate, quality of laboratory work.

Four patients representing range and quality of treatment presented to the internal examiners at the end of the year one and at the end of year two. Part-time students are expected to show two of the four patients from practice (year two only).

A fully documented case is presented to the external examiner at the end of year two.

C Cognitive skills

- 1** The ability to evaluate the validity of research literature and its clinical applicability
- 2** The understanding of and ability to apply research methodologies
- 3** The ability to integrate theoretical and practical knowledge

Teaching strategy

A research supervisor and project are allocated at the start of the first year. Aims and objectives for the project are established and a full draft literature review completed by the end of that year. It is expected that some experimental work will be done in the first year with the majority in the second.

Learning strategy

Students must attend regular meetings with their supervisor and meet deadlines for the various components of the project. An up-to-date research log book must also be kept.

Students present their intended projects to the rest of the group convened by a senior member of research staff. Other postgraduate students and staff are invited to attend these sessions.

Assessment strategy

The literature review is assessed by an internal examiner and constructive feedback given at the start of the second year. At the end of the second year the full dissertation is examined formally by the external and internal examiners. At that time A3 is examined by a general restorative viva voce.

D Key (transferable) skills

- 1 The ability to use appropriate IT skills for data analysis and documentation
- 2 The ability to use efficiently the library and other information retrieval systems
- 3 The realisation that academic and clinical skills need to be constantly reviewed challenged and updated through continuing professional development in which you should play an active part in both receipt and delivery
- 4 The ability to work in harmony with peers, support staff and teachers with a view to becoming a team leader

Teaching strategy

D 1, 2 Word processing, library skills and Medline during induction week. Advanced word processing and use of Endnote bibliographic software during term 2 or 3 in conjunction with literature review writing. Statistical course (term 2) and statistics applied to research project (terms 2-6). Teaching experience of undergraduates organised during terms 2 and 3 of second year (D3). Students expected to organise their own clinical practice to meet assessment targets (D4). Students encouraged to lead some of their seminars in Dental Materials Science (D4).

Learning strategy

Problem based in relation to tackling research project, presenting seminars and developing clinical practice.

Assessment strategy

Assessment of research project described in C. Constructive feedback on clinical performance, clinical teaching and seminar presentation.

Units of Study**Credits****Learning****Progression****Outcomes****Requirements****11 Programme Features, Curriculum and Structure:****(i) Programme Features**

The two year programme (6 terms) comprises three main areas:

1. Supervised clinical and laboratory practice involving treatment planning, clinical procedures and technical work for selected cases, including some complex treatments
2. Review of the clinical and scientific evidence base for Restorative Dentistry by means of seminars, lectures and practical classes
3. A research project and dissertation demonstrating a candidate's application of scientific method to a problem of relevance to Restorative Dentistry (a trainee on a Monospeciality programme would be expected to carry out a project within that area of interest).

The two year programme provides considerable improvements over the old one year programme which was becoming increasingly congested.

Students can expect a high degree of clinical exposure under expert tuition (full time students have up to 4 treatment sessions, one diagnostic clinic and one teaching session per week). There is excellent technical support and students are encouraged to liaise with the laboratories as well as do their own mountings, trial adjustments and diagnostic waxing. Students are not expected to undertake laborious repetition of technical procedures. The dissertation for the research project is written up as a paper for submission to a journal in combination with a full introduction and literature review. This approach will facilitate the candidate getting the work published and the scrutiny of the research log book will encourage good record keeping.

The course may be taken on a part-time basis by dentists working locally in practice, hospital or the community providing they are able to present some of the work carried out in practice as part of their clinical requirements.

(ii) Curriculum and Structure

The foundation for clinical and laboratory practice consists of three clinical skills courses completed during the first term. There is also a laboratory course which the student must complete satisfactorily. Students must obtain a satisfactory standard in the Fixed and Removable 'Phantom Head' programme before being allowed to treat patients under supervision from the start of second term. During terms 2, 3 and 4 students see patients for treatment in the following 4 clinical areas (4 sessions per week): Conservation and Fixed Prosthodontics, Removable Prosthodontics, Endodontics and Periodontics. During terms 5 and 6 general restorative patients are seen for treatment (3 sessions per week for full time and 2 sessions for part-time) and to consolidate experience in readiness for the clinical presentation and viva voce examinations in September of the second year. Diagnostic Clinics are specifically timetabled for full-time students as are compulsory undergraduate teaching sessions.

The seminar programme is based on 7 compulsory modules:

- Conservation and Fixed Prosthodontics
- Complete Prosthodontics
- Dental Materials Science
- Endodontology
- Interrelated subjects
- Periodontology
- Removable Partial Prosthodontics.

With the exception of Complete Prosthodontics the seminars are completed in early June of the first year to allow 3 weeks revision time. A satisfactory performance in the written papers in July is necessary to progress to year two.

The research project is spread across both years. During the first year aims, literature and pilot studies must be completed. It is a requirement for progression from year one to two that the draft literature review be handed in for assessment and comment at the end of July of the first year. Practical work may be spread between both years and writing-up completed by the beginning of August of the second year.

Curriculum showing relative time commitment

Year 1			
	No. of sessions (A)	Mean session Duration (hrs) (B)	Student contact hours Total (A) x (B)
Seminars			
Conservation	14		
Endodontics	9		
Interrelated subjects	25		
Materials Science	19		
Phantom Head	13		
Periodontics	21		
Prosthodontics	10	1.5 seminar	
		1.5 preparation	168
Total	<i>112</i>	(minimum)	168
Phantom Head Practical	<i>13</i>	2	26
Lab Course	<i>12</i>	3 1 preparation	36 12
Clinic terms 2,3			
Conservation	20		
Endodontics	20		
Periodontics	20		
Prosthodontics	80	3	240
Total			
Statistics	13	1.5	195
Research Project			
Literature review	40	5	200
Practical	30	3	90
Tutorials	10	2	20
Combined practitioner Courses			
Occlusion & restorations	4		
TMD	3		
Implant	4		
Total	<i>11</i>	3.5	38.5
Revision (Including essay practice)	50	3	150
Total contact hrs			1344

Year 2			
	No. of sessions (A)	Mean session Duration (hrs) (B)	Student contact hours Total (A) x (B)
*Teaching experience	20	3	60
Clinic terms 4,5,6 Restorative	100	3	300
**Diagnostic Clinics	40	3	120
Research Project			
Practical	40	8	320
Tutorials	15	2	30
Writing-up	40	5	200
<i>Revision</i>	50	3	150
Total contact hrs			1180

* Compulsory for full-time students

**Compulsory for full-time students and spread flexibly between years 1 and 2

NB students registered as part-time are expected to present work done in practice (community or armed forces) so attend 180hrs less than the total in the first year and 150hrs less than the total in the second.

12 Support for Students and their Learning:

Induction

Students register the day before starting the course so that full concentration can be given to the process of induction. Induction consists of the following:

- Meet as a group with the Course Director to be given overview of course, assessment and personnel involved
- Issue Course Handbooks, Study Guides and a list of available research projects
- Introduction to Library and Medline
- Buffet lunch to meet MSc teachers and project supervisors
- Allocation of office space and clinical skills equipment
- Appointments made with module leaders to discuss reading assignments for seminars

The first week is designed to ensure students have time to familiarise themselves with their surroundings, and, prepare for their first seminars and clinical skills sessions.

Study skills support

- Library resource training (as part of induction)
- IT training provided by the Medical Faculty Computing Centre
- Seminar related reading skills and bibliographic reference management during early seminars

Academic support

- Each student is provided with a specific member of staff for research supervision and advice on dissertation writing. Frequency of visits will be determined by the nature and timing of the projects. The meetings are scheduled in line with mutually agreed deadlines for each stage of the project.
- The course director who will see all students at least once per week provides general academic guidance
- Comprehensive study guides
- Verbal feedback after each clinical session and mutually agreed self grading
- Verbal feedback on research project progress from panel of supervisors (Oct of second year)
- Written student and supervisor feedback forms forwarded to Curriculum Committee (June each year)
- Written feedback on marked revision essays during run-up to first year examination
- Students have personal and e-mail access to their project supervisors and programme director at all times

Pastoral support

- Each student is provided with a specific tutor for pastoral support. Meetings occur at least once per term and more often if required
- The course director will also provide pastoral support either to supplement or replace the support provided by the tutor
- A student may request a change of tutor
- Matters which cannot be resolved by the tutor or programme director will be referred to the Head of School or to the Student Counselling Service or the Student Advice Centre as appropriate (contact information in student handbook)

Support for Special Needs

Dentistry requires a high degree of manual skill, co-ordination and visual acuity so students must be physically able to carry out all the tasks normally done by dentists. The University Disability Support Service has specialist staff to give advice and guidance. Applicants who may have any doubts about their suitability for the course should contact the Dental School for advice before submitting an application.

Information on the Disability Support Service is at:

<http://www.ncl.ac.uk/disability.services/support/>

and for an explanation of the legislation see:

http://www.ncl.ac.uk/disability.services/support/new_legislation.php

Learning resources

- Excellent treatment and diagnostic clinics supervised by specialists
- A dedicated classroom for first year students where the majority of the seminars are carried out
- Good access to networked personal computers in MSc accommodation and University Clusters
- World renowned Dental Materials Science and Oral Biology Laboratories
- The Walton and Robinson Libraries provide an extensive range of journals, text books, access to interlibrary loan, electronic journals, databases and internet
- A state of the art Clinical Skills Laboratory
- Access to the Postgraduate Dental Suite (D502)

13 Criteria for Admission:

A dental degree recognised by the GDC as being sufficient for the purposes of temporary registration. Applicants are preferred with two or more years of experience at the start of the programme. Overseas and EC students need at least IELTS 6.5 (TOEFL 575, computer based 233). Students must have the required immunisation against blood born viral disease and must not have any disease which would constitute a hazard to their patients. Students are advised to attend to these requirements before starting the course and will not be allowed clinical access until they have done so.

Admissions policy

Applicants are selected according to the quality of their application and previous experience. Where possible we try and achieve an equal mix of EC and overseas students.

Applicants wishing to use the MSc programme as part of Higher Specialist Training (4 or 5 year programmes) must be in possession of MFDS and have a National Training Number provided by the Postgraduate Dean of Dentistry. Training programmes in the Monospecialities (Endodontics, Periodontology and Prosthodontics) have been approved by the Specialist Advisory Committee. These started in September 2003 with admission through competitive selection.

Students enrolled on the MSc course may not subsequently transfer to a Higher Specialist Training programme.

14 Methods for evaluating and improving the quality and standards of teaching and learning:

Student evaluations

Students are encouraged to make their comments known to their year representative who will raise them at the termly Curriculum Committee Meetings.

Students and their research supervisors complete an evaluation form of research progress in May - June of each year which is forwarded to the Curriculum Committee. This process started in June 2004.

The programme is formally reviewed at the end of the course after the final marks have been given. In this way students' comments are least inhibited.

Course reviews

At the end of each year all staff are asked to review their seminars and update reading lists for the following year's study guides.

Programme reviews

The programme has been reviewed formally by the Annual Programme Review Exercise and is scrutinised on a termly basis by the Teaching and Learning Sub Committee of the MSc Curriculum Committee. The Degree Programme Director annually updates the Programme Specification which is forwarded to the MSc Curriculum Committee for feedback and approval.

External examiner reports

The MSc Curriculum Committee receives annual reports from the external examiner. Recommendations are then discussed, acted on and reported to the Graduate School Board of Studies.

Accreditation reports

Until February 2001 the course was accredited for the purpose of approved training in respect of FDS/MFDS. Now that the MFDS is considered to mark the end of General Professional Training we have aligned the MSc programme with Monospeciality training (Endodontics, Periodontics, Prosthodontics). The Specialist Advisory Committee is to revisit the programmes, including the MSc, 2004-05.

Feedback mechanisms

It should be emphasised that there is considerable contact between students and staff. The arrangements for feedback on clinical performance and research progress have already been described (Section 12 – academic support, Section 14 – student evaluations).

The minutes of the Curriculum Committee provide the main conduit for formal feed back to both students and staff. The Degree Programme Director will often be the channel for both informal and formal feedback.

15 Regulation of assessment

Pass marks

<50	Fail
50-59	Pass
60-69	Pass with Merit
70+	Pass with Distinction

Course requirements

The course consists of two main parts: the taught course and the research project. Both parts must be completed satisfactorily to attain the degree. The taught component has both clinical and academic elements.

Research Dissertation: this comprises a literature review, which must be handed in for formative assessment at the end of the first year, and a manuscript for a targeted research journal. The soft bound dissertation is summatively assessed at the end of the second year as is the research log book.

Clinical work, comprising four general restorative cases, is assessed by the internal examiners at the end of the

first year and a second group of four patients assessed at the end of the second year. One restorative case, fully documented with a log diary, is seen by the external examiner at the end of the second year. A Monospeciality trainee at the end of the second year would be expected to submit 4 cases to the internal examiners showing evidence of expertise in the relevant Monospeciality.

Academic work, comprising mainly seminars, is examined by written paper (a long answer paper and a short answer paper) at the end of the first year and by viva voce at the end of the second year. Progression from first to second year is dependent on obtaining an aggregate pass for the two papers.

Weighting of stages

The examination, which must be passed as a whole, consists of:

- a) Written examination
- b) Clinical case presentation
- c) Clinical oral examination
- d) An assessment of a dissertation submitted by the candidate on an approved subject
- e) An oral examination on the dissertation.

Each section of the examination comprises 20%.

Role of the external examiner

An external examiner for the course (currently Mr Leslie Howe) is appointed by the Faculty of Medical Science Teaching and Learning Committee. The external examiner is a distinguished member of the Dental Science community and a specialist in Restorative Dentistry.

The external examiner's role is that of moderator. In order to do this, the external examiner:

- Sees and approves examination questions
- Sees examination scripts, comments on the standards of marking and moderates discrepancies in double marking
- Sees the log diary for and examines a selected clinical case
- Examines dissertations
- Performs viva voce examinations for all students
- Attends the September Board of Examiners meeting
- Reports to the University regarding standards, and comparability of standards

16 Indicators of Quality and Standards:

Previous QAA Reports

An excellent report was received from the TQA inspection in 1998 where the Dental School scored an overall 23/24

The Internal Subject Review, Oct 2004, singled out the MSc dissertation course guide as an example of exemplary practice. Also commended was the clarity of presentation of the learning outcomes of the programme.

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. It should be noted that there may be variation in the range of learning opportunities reflecting the availability of staff to teach them. While every effort will be made to ensure that the module or modules described in the programme specification are available, this cannot be guaranteed.

The accuracy of the information contained is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

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

The University Prospectus

The Departmental Prospectus

The University and Degree Programme Regulations

The Degree Programme Handbook

The Monospeciality Handbooks

QAA Subject Review Report 1998

Internal Subject Review of Dental Sciences 2003

MSc website http://medical.faculty.ncl.ac.uk/dentistry/MSc_Courses/Restorative_Dentistry/