

PROGRAMME SPECIFICATION



1	Awarding Institution	Newcastle University
2	Teaching Institution	Newcastle University
3	Final Award	MSc in Orthodontics
4	Programme Title	MSc in orthodontics
5	UCAS/Programme Code	5009
6	Programme Accreditation	The Specialist Advisory Committee (SAC) in Orthodontics on behalf of the Joint Committee for Specialist Training in Dentistry (JCSTD) which reports to the General Dental Council and the Dental Faculties and Councils of the Royal Colleges of Surgeons.
7	QAA Subject Benchmark(s)	
8	FHEQ Level	
9	Date written/revised	03/04/2011

10 Programme Aims

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

- Specialist practice
- Specialist training in Orthodontics
- Clinical academia
- Community Dental Services

Specifically, the program aims to provide:

1. Clinical and laboratory practice involving treatment planning, clinical procedures and technical work for Orthodontic cases requiring both routine and complex treatments
2. The ability to evaluate critically the evidence base for Orthodontics
3. Experience of performing applied research within Orthodontics

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 have:

A1 a systematic understanding of knowledge within and directly related to Orthodontics, and a critical awareness of current problems and new insights, much of which is at, or informed by, the forefront of the field of study and area of professional practice

A2 a comprehensive understanding of techniques applicable to Orthodontic practice and their own research

A3 an understanding of the application of clinical and scientific knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline

A4 a conceptual understanding that enables the student:

- to diagnose anomalies of the dentition and cranio-facial structures
- to understand the aetiology of malocclusion
- to understand the clinical approach to management of patients and the timing of treatment appropriate to physical and psychological development

- to understand the principles and practice of orthodontic treatment, including an understanding of a variety of treatment methods
- to understand the principles and practice of cephalometry
- to have an ability to evaluate critically scientific literature and carry a research project through to completion.

Teaching and Learning Methods

Teaching for A1 is mainly by pre-arranged tutorials, the majority of which are completed during the first 2 years of the course. Each tutorial has a structured reading list prioritized where necessary into essential and recommended reading. These lists are reviewed annually. There is a regular journal club in which students are expected to participate. For items A2, A3 and A4 students are given clinical teaching whilst treating/observing patients with orthodontic problems. Students engage in a research dissertation and statistics/research methodology course. Students are expected to attend the Dental Hospital and Regional Clinical Audit Meetings.

Students are expected to prepare for each tutorial and to engage in tutorial discussion. Each student has a research project and is allocated suitable patients for diagnosis and treatment.

Assessment Strategy

A1 is assessed at the end of the second year by set essays and a short answer paper. In-course essays are set during the first and second years. Practice questions are set in the run up to the written examination. Assessment of clinical knowledge is described below. The dissertation literature review is assessed internally at the end of the first year and the whole dissertation at the end of the second term of the 3rd year (A3). At the end of the third year a clinical exam of knowledge and patient management is undertaken (A2; A4).

Intellectual Skills

On completing the programme students should be able to:

B1 assess, diagnose and formulate an appropriate treatment plan including an organized sequence of delivery and prediction of its course

B2 assess prognosis of the preferred treatment option based on clinical outcome studies and audit

B3 recognize the need for continuous reassessment of patient response as treatment progresses

B4 formulate a clear laboratory prescription and understand the technical procedures involved

B5 process letters of referral, to prioritise appointments, and liaise with general dental practitioners

B6 treat patients with respect and without prejudice

B7 appreciate their limitations and to take advice or refer a patient when appropriate

B8 plan interceptive orthodontic measures

Teaching and Learning Methods

Patients are allocated for treatment under supervision, requiring increasingly complex work as the course progresses. Diagnostic and treatment clinics are timetabled specifically for students. There are a number of resource days shared with members of the Northern University Consortium (NUC); Leeds, Newcastle, Birmingham, Sheffield, Liverpool and Manchester

Assessment Strategy
<p>Student performance is assessed informally for each patient management session. Informal feedback by teachers is given during sessions.</p> <p>Students undertake clinical compulsory tests as outlined in the Student Handbook</p> <p>Four fully documented cases treated by the student are presented at the end of year 3 as part of the final examination</p>
Practical Skills
<p>On completing the programme students should be able to:</p> <p>C1 deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences</p> <p>C2 demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level</p> <p>C3 continue to advance their knowledge and understanding, and to develop new skills to a high level; critical skills necessary for scientific appraisal and enquiry</p> <p>C4 develop a critical attitude towards outcome of treatment and participation in professional audit</p>
Teaching and Learning Methods
<p>Research supervisors and projects 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 the 1st year.</p> <p>Students attend regular meetings with their supervisors and meet deadlines for the various components of the project. An up-to-date research journal must also be kept as part of the learning portfolio. . Students are expected to plan and manage the treatment of their patients and present at case conferences.</p> <p>Students report their patients' progress to their clinical supervisors and colleagues.</p> <p>Continuous formative feedback is given during clinical attachments and in tutorial and seminars</p>
Assessment Strategy
<p>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 term of the 3rd year the full dissertation is examined formally by the external and internal examiners. At that time A1, A2, A3 and A4 are examined by a general orthodontic viva voce and dissertation viva.</p>
Transferable/Key Skills
<p>On completing the programme students should be able to:</p> <p>D1 use appropriate IT skills for data analysis and documentation</p> <p>D2 use efficiently the library and other information retrieval systems</p> <p>D3 understand 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</p> <p>D4 work in harmony with peers, support staff and teachers with a view to becoming a team leader</p>
Teaching and Learning Methods
<p>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). Students are expected to organise their own clinical practice to meet assessment targets (D4).</p> <p>Learning is problem based in relation to tackling research project, presenting seminars and developing clinical practice.</p>

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

12 Programme Curriculum, Structure and Features
Basic structure of the programme
<p>The 3 year programme (9 terms) comprises 3 main areas:</p> <ol style="list-style-type: none"> 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 Orthodontics by means of tutorials, case seminars and practical classes 3. A research project and dissertation demonstrating a candidate's application of scientific method to a problem of relevance to Orthodontics. <p>Students can expect a high degree of clinical exposure under expert tuition (students have up to 5 Clinical sessions and one diagnostic clinic session per week). There is excellent technical support and students are encouraged to liaise with the laboratories. Students are not expected to undertake technical laboratory procedures. The dissertation for the research project is written up as paper(s) for submission to a journal during the third year. This approach will facilitate the candidate getting the work published and the scrutiny of the learning portfolio will encourage good record keeping.</p> <p>Each student keeps a learning portfolio which encourages reflective learning and personal development planning as well as recording meetings, formative and summative assessment. These form part of the Educational Regular In-Course Appraisal (ERICA) discussion between the Clinical Teaching lead/DPD and students</p> <p>(ii) Curriculum and Structure</p> <p>The foundation for clinical practice consists of a clinical skills and laboratory course completed during the induction weeks which the student must complete satisfactorily, prior to seeing patients under supervision. During all 3 years students see patients for treatment and diagnosis.</p> <p>The seminar programme is based on 9 compulsory modules:</p> <ul style="list-style-type: none"> • Basic orthodontic subjects. • General orthodontic subjects. • Orthodontic techniques. • Biological sciences relevant to orthodontics. • Multidisciplinary treatment procedures. • Specific treatment procedures. • Information technology. • Management of oral health. • The practice and business of specialist orthodontic practice. <p>With the exception of the practice and business modules, the majority of the tutorials are completed by July of the second year. A satisfactory performance in the written papers in June is necessary to progress to year 3. The research project is spread across the first 2 1/2 years. During the first year; aims, literature and pilot studies should 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</p>

spread between both years and writing-up completed for the submission of the dissertation by the start of the 2nd term in the 3rd year.

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

Programme regulations (link to on-line version)

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

13 Criteria for admission

Entry qualifications

The course is only available to students on the EU/UK NHS Spr training programme

To be eligible for the three-year EU/UK NHS specialist registrar programme, applicants must have:

1. a dental degree from a course lasting five years which would enable full registration with the UK General Dental Council (GDC); and
2. two years' General Professional Training or equivalent (as approved by the JCSTD Equivalence Committee); and
3. MFDS or equivalent (as approved by the JCSTD Equivalence Committee); and
4. the required immunisation against blood-borne viral disease and must not have any disease which would constitute a hazard to their patients.

Students must attend to these requirements before starting the programme and will not be allowed clinical access until they have done so.

Please note: students on the EU/UK NHS SpR programme are allocated National Training Numbers by the postgraduate deanery and are eligible for registration on the GDC specialist list in orthodontics on completion of the programme and passing the appropriate Royal College examination.

Admissions policy/selection tools

E2R

Non-standard Entry Requirements

Additional Requirements

Level of English Language capability

14 Support for Student Learning

Induction

During the first week of the first semester students attend an induction programme. New students will be given a general introduction to University life and the University's principle support services and general information about the School and their programme, as

described in the Degree Programme Handbook. New and continuing students will be given detailed programme information and the timetable of lectures/practicals/labs/ tutorials/etc

Study skills support

Students will learn a range of Personal Transferable Skills, including Study Skills, as outlined in the Programme Specification. Some of this material, e.g. time management is covered in the appropriate Induction Programme. Students are explicitly tutored on their approach to both group and individual projects.

Numeracy support is available through Maths Aid. Further details are available at:

http://www.ncl.ac.uk/library/news_details.php?news_id=159 Help with academic writing is available from the Writing Centre. Details can be obtained from Alicia.Cresswell@ncl.ac.uk

Academic support

The initial point of contact for a student is with a lecturer or module leader, or their tutor (see below) for more generic issues. Thereafter the Degree Programme Director/Clinical Teaching Lead or Head of School may be consulted. Issues relating to the programme may be raised at the Curriculum Committee.

Pastoral support

All students are assigned a personal tutor in line with school policy.

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, see

<http://www.ncl.ac.uk/undergraduate/support/welfare/index.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. For further details 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,

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

Module reviews

All courses are subject to review by questionnaires which are considered by the Curriculum Committee. Changes to, or the introduction of new, courses are considered at the Curriculum 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.

External Examiner reports

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

Student evaluations

All courses, and the degree programme, are subject to review by annual student questionnaires. Informal student evaluation is also obtained at the Curriculum Committee

Mechanisms for gaining student feedback

Feedback is channelled via the Curriculum Committee..

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

Accreditation reports

The NHS Specialist Registrar Training Programme, which reflects the MSc in Orthodontics, is inspected by the Deanery. In addition, the NHS Registrars on the Training Programme are interviewed every year by representatives of the SAC.

Additional mechanisms

16 Regulation of assessment

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/tpmdprexamconv.pdf>).

MSc Examination

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

1. In course essays (the first 6 which are summative): Titles are given at completion of the appropriate tutorial. Students have 4 weeks to complete the essay

2. Progress from year 1 to year 2 is based on:

Satisfactory completion of in course work undertaken in that year; Submission and satisfactory review of dissertation literature review (submitted by the last working day of June of 1st year); Satisfactory clinical progress

3. Part 1 (taken in June of year 2)

Two Written papers are set. The written papers each have four questions, to be answered in three hours.
The oral examination is a 20 minute *viva voce* examination.

4. Part 2 (taken in January of year 3)

Dissertations must be submitted by the last working day of January in the 3rd year.

5. Part 3 (taken in March/April of year 3)

Presentation of 4 completed clinical cases
1 Long unseen case *viva voce* examination

During the long unseen case the candidate has 40 minutes in which to examine a patient, following which there is a 20 minute period with the examiners in the course of which the candidate presents his/her findings and discusses the possibilities with regard to treatment.

All students should satisfactorily complete ERICA/RITA

The final mark assigned to each candidate will be a grade, S or M being required to pass. In addition candidates must attain a minimum grade of S in each of the three parts of the examination.

- Candidates who satisfy the examiners at the first attempt and who show special achievement in the examination may be awarded a pass with Distinction. The marks required for the award of Distinction shall be determined at the Meeting of Examiners.
- A candidate whose dissertation does not satisfy the examiners, but who has satisfied the examiners in other parts of the examination, may be permitted by the Board of the Faculty, on the recommendation of the examiners, to re-submit the dissertation in a revised form within two months from a date approved by the Board. The candidate may also be required to undergo a further oral examination.
- A candidate who submits a satisfactory dissertation, but who fails to satisfy the examiners in other part or parts of the examination, may be permitted by the Board of the Faculty, on the recommendation of the examiners, to re-sit the examination on one further occasion within six months from a date approved by the Board.
- A candidate who has failed in any part or parts of the examination may be required by the Examiners to produce evidence of further study as prescribed by the Examiners before being allowed to re-sit the examination.

Common Marking Scheme

MSc Grading system

The scheme, UMBS, uses the following grades and descriptors:

M	Merit
S	Satisfactory
B	Borderline
U	Unsatisfactory

Role of the External Examiner

An external examiner for the course is appointed by the Faculty of Medical Science Teaching and Learning Committee (FTLC). The external examiner is a distinguished member of the Dental Science community and a specialist in Orthodontics.

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 learning portfolio and examines selected clinical cases
- Examines dissertations
- Performs viva voce examinations for all students
- Attends the Board of Examiners Meeting
- Reports to the University regarding standards, and comparability of standards

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

The School Brochure (contact enquiries@ncl.ac.uk)

The University Regulations (see <http://www.ncl.ac.uk/calendar/university.regs/>)

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.