



# UNIVERSITY OF PLYMOUTH

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## Faculty of Health

Peninsula Dental School

### **Programme Specification**

MSc Endodontics (6519)

January 2022

**Date of Re-Approval:** 20<sup>th</sup> July 2021

## 1. MSc Endodontics

**Final award title:** MSc Endodontics

**Intermediate award titles:** Postgraduate Diploma Endodontics  
Postgraduate Certificate Endodontics

**UCAS code:** N/A

**JACS code:** A400 Clinical Dentistry

**HECoS code:** 100266

2. **Awarding Institution:** University of Plymouth

**Teaching institution(s):** University of Plymouth

3. **Accrediting body(ies)**

Royal College of Surgeons of England (re-accreditation due February 2024)

## 4. **Distinctive Features of the Programme and the Student Experience**

The MSc in Endodontics delivered by the University of Plymouth is a part of the highly successful suite of postgraduate taught dental programmes. These programmes cover Restorative Dentistry, Periodontology and Oral Surgery and have proved both highly popular and successful. The current programmes have received recognition locally by both the NHS and HEE. These courses are currently the only dental courses that have been accredited by the Royal College of Surgeons in England.

In the UK, Endodontics is a dental speciality recognised by the General Dental Council. The speciality of Endodontics deals with the study and treatment of the Dental Pulp. It involves the treatment of adults and children and often the management of the dentally anxious and medically compromised patients.

General Dental Practitioners (GDP's) deliver simple endodontic treatment as part of their daily practice. Those with additional training and enhanced skills may deliver more complex services in a dental practice setting.

Data show that the provision of endodontic care by GDP's is "patchy", lacks consistency, and is an area often associated with clinical underperformance.

This programme is designed to address these issues and to enhance GDP's skill levels and career progression by providing knowledge about contemporary approaches to the management of endodontics in addition to practical simulated clinical skills. Consultants and Specialists in Restorative Dentistry and/or Endodontics will remotely supervise clinical care provided by the practitioner for their own patients. This mixed approach will enable students to develop their confidence and competence in practical clinical skills as well as augmenting their theoretical knowledge. The proposed programme is potentially applicable to 95% of the 40,000 UK registered dentists.

A survey of SW dental practitioners (sample size: 400) showed that almost half (49.2%) of responders indicated that they would be interested in University credit bearing programmes. 99.1% indicated that they would like to be notified of any such opportunities that PDS might develop. Both closed responses and open responses/comments have indicated that practitioners are keen to see the development of postgraduate dental education within the SW. There are currently no credit-bearing dental courses in Endodontics in England, west of Bristol.

The planned changes to the commissioning of services for Restorative dentistry are likely to make practitioners more involved in care of patients following referral for treatment, and to lead to an increase in patients requiring more complex work than that provided in "routine" dental practices, with more complex clinical care being provided outside of the Acute Hospital setting.

On successful completion of the Postgraduate Certificate stage of the programme graduates should have developed the appropriate knowledge, skills and attitudes required of a General Dental Practitioner to deliver safe and effective endodontics in a primary care setting (Level 1).

The Diploma in Endodontics builds on the Certificate stage and also delivers enhanced training so that graduates will have the appropriate knowledge, skills and

attitudes required of a dentist wishing to be considered as a Dentist with Enhanced Skills (DES) in Endodontics (Level 2).

The Endodontics programme is designed not only to develop a GDP's knowledge and skills in Endodontics but also to produce a clinician who is evidence based and reflective in their daily practice through taught elements in reflective practice, critical appraisal of the literature and evidence based practice during all modules of the programme. Completion of the dissertation component, leading to the award of a Master's degree in Endodontics will give practitioners skills in question formulation, evidence-searching, critical appraisal and academic writing.

In summary:

- The programme will be led by a team of Consultants and Specialists in Restorative dentistry and/or Endodontics and complemented by respected visiting clinicians and educators.
- The programme is structured to allow participants to continue their current working commitments while studying at an appropriate pace.
- Each module at certificate and diploma stages includes hands-on consultant/specialist led supervision and clinical time to facilitate the demonstration, assimilation and practice of taught surgical techniques.
- The course allows diagnosis, treatment planning, patient management and practical clinical techniques to be learnt, underpinned by an appraisal of the evidence base, so that participants gain the skills to practice critically and effectively in their own dental practices.
- As well as seminars, tutorials and self-directed learning in context, the programme also includes practical hands on teaching in our state of the art clinical facilities and simulated dental learning environment.
- The programme will allow enhanced skills, knowledge, and critical thinking to be developed in Endodontics in the following areas: -
  1. Diagnosis
  2. Treatment planning
  3. Non-surgical and surgical skills
  4. Management of the medically compromised patient
  5. Restoration of teeth following endodontic treatment

Clinical and Simulated Dental Learning Environment resources will be utilised outside of the teaching activities of current programmes, and it is envisaged that the majority of this will occur in the new Exeter Facility. Currently, most (circa 80%) Postgraduate

teaching days are held in this Facility, using space not required for undergraduate teaching, and this principle will be continued. The remaining teaching sessions will be held in Plymouth.

## 5. Relevant QAA Subject Benchmark Group(s)

The programme has been developed with reference to the relevant policies and procedures related to the University of Plymouth and external agencies such as the Quality Assurance Agency<sup>1</sup>.

Although there is no specific QAA Subject Benchmark for Endodontics, reference has been made to the Framework for Higher Education Qualifications of UK degree-awarding bodies (2014)<sup>2</sup>, using descriptors for a higher education qualification at level 7: Master's degree.

## 6. Programme Structure

Students will study on a part time basis with each stage of the programme normally completed within one year. All modules are at FHEQ Level 7.

### Postgraduate Certificate stage modules:

ENDO711  
Foundations of Endodontics  
(30 Credits)

ENDO712  
Endodontics in Practice  
(30 Credits)

### Postgraduate Diploma stage modules:

ENDO721  
Advanced Endodontics 1  
(30 Credits)

ENDO722  
Advanced Endodontics 2  
(30 Credits)

<sup>1</sup> <https://www.qaa.ac.uk> (last accessed 4/3/20)

<sup>2</sup> <https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf> (last accessed 4/3/20)

## Masters Stage

DIS732  
Dissertation  
(60 Credits)

In accordance with the University of Plymouth Academic Regulations, the award of MSc requires the successful accumulation by the candidate of a minimum of 180 credits. In order to complete the MSc in Endodontics, students will need to satisfy the academic standards for the required modules as outlined in the Module Records. The modules are described below:

### **Module 1 - ENDO711 Foundations of Endodontics**

This module covers key concepts underpinning the delivery of Endodontics, enabling learners to develop their understanding and knowledge of the subject including relevant basic sciences, diagnosis, treatment planning, non-surgical treatment. It also teaches essential skills in subjects essential to continuing professional development and evidence-based care, such as critical appraisal and Master's level writing.

Teaching is delivered through seminars and by demonstrations and practical training in the Simulated Dental Learning Environment (SDLE).

### **Module 2 – ENDO712 Endodontics in Practice**

This module enables students to develop their skills and diagnosis and treatment planning for more complex patients, and contemporary techniques commonly used in practice.

Teaching is delivered through seminars and by demonstrations and practical training in the Simulated Dental Learning Environment (SDLE).

### **Module 3 - ENDO721 Advanced Endodontics 1**

This module builds on existing knowledge and newly acquired skills from modules 1 and 2 and introduces more complex endodontic treatment options, including the surgical management of endodontics and surgical root end therapy. Students will

also develop essential skills such as management of trauma and techniques for restoring root treated teeth.

Teaching is delivered through seminars and by demonstrations and practical training in the Simulated Dental Learning Environment (SDLE).

#### **Module 4 – ENDO722 Advanced Endodontics 2**

This module augments knowledge and newly acquired skills from previous modules, relating to treatment with Endodontics. It teaches the management of iatrogenic problems, deciduous teeth, vital pulp therapy and practice management.

Teaching is delivered through seminars and by demonstrations and practical training in the Simulated Dental Learning Environment (SDLE).

#### **Module 5 – DIS732 Dissertation**

This module is designed to enable students to produce a project dissertation under supervision and to demonstrate; clinical question formulation, evidence acquisition, evidence evaluation, evidence synthesis within a clinical context, clinical decision making and critical reflection skills related to Endodontics.

Individual teachings days may also be made available as non-credit bearing CPD.

### **7. Programme Aims**

1. Develop a deep and systematic understanding of the key concepts and evidence-base relating to the diagnosis, treatment planning and treatment of patients suffering from endodontic disease.
2. Critically analyse and evaluate the available evidence that supports diagnosis, treatment planning and treatment for endodontics, applying it where appropriate and recognising where alternative approaches are required.
3. Using critical reflection and synthesis of knowledge gained through the course learning outcomes and previous clinical experience to safely and proficiently demonstrate effective treatment techniques relating to endodontics within the learners own practice setting.
4. Demonstrate the ability to design, conduct, evaluate and write up a project that is of relevance to professional practice as a GDP with enhanced skills in endodontics, and will result in direct benefit through improved care for patient(s). Demonstrate

self-direction, originality and an ability to respond to constructive feedback and to act autonomously in the planning and implementation of project skills at an advanced professional level.

## 8. Programme Intended Learning Outcomes

The programme provides opportunities for participants to develop and demonstrate the general outcomes listed below. The learning outcomes are referenced to Masters level 7 descriptors in the UK Quality Code for Higher education frameworks for Higher education Qualifications of UK degree-awarding bodies (2014) and the Southern England consortium for Credit accumulation and Transfer (SEEC) Credit Level descriptors for Further and Higher Education (2010). These will be contextualised within each participant's coursework.

### 8.1. Knowledge and understanding

On successful completion graduates should have developed:

- 8.1.1 Demonstrate a **deep understanding** of the anatomy and physiology of the oral and peri-oral tissues with particular emphasis on endodontic related tissues
- 8.1.2 Demonstrate an **in-depth understanding** of the aetiology pathobiology and clinical presentation of diseases of the oral and peri-oral tissues
- 8.1.3 An in-depth **critical and systematic understanding** of current theoretical and methodological approaches to the management of a patient who suffers from endodontic disease, either *de novo*, or following previous treatment.
- 8.1.4 Demonstrate a **critical and systematic understanding** of the behavioural, clinical and technical procedures involved in the treatment of patients requiring endodontic care
- 8.1.5 Show evidence of the ability to **assess** research

### 8.2. Cognitive and intellectual skills

On successful completion graduates should have developed the ability to:

- 8.2.1 Demonstrate a **broad and in depth understanding** of the evidence base in Endodontics
- 8.2.2 Demonstrate the ability to **review** and **translate** evidence in significant areas of theory and/or practice in Endodontics into practice
- 8.2.3 Show professional judgement to develop **critical responses** to existing theoretical discourses, methodologies or practices in response to problems,

- by developing an **evidence based treatment** plan and taking a reflective and holistic approach to **solving problems** and designing treatment plans
- 8.2.4 Demonstrate the ability to **critically assess** scientific papers and available evidence such as guidelines using a variety of information sources
  - 8.2.5 Evaluate **critically the scope and limitations** of the various techniques used in Endodontics balancing the risks and cost benefits of treatment demonstrating self-direction and autonomy
  - 8.2.6 **Appraise systematically** current evidence in Endodontics including complex, incomplete or contradictory evidence/data and judge the appropriateness of the enquiry methodologies used and conclusions made
  - 8.2.7 Demonstrate the ability to **sustain a critical argument** in writing and through oral presentations using critical reflection and appraisal of the evidence in relation to Endodontics
  - 8.2.8 **Evaluate critically and systematically** complex, incomplete or contradictory evidence/data and judge the appropriateness of the enquiry methodologies used and conclusions made. Recognise and argue for alternative approaches using critical reflection and appraisal of the evidence in relation to Endodontics.
  - 8.2.9 **Flexibly and creatively apply knowledge in unfamiliar contexts**, synthesise ideas or information in innovative ways, and generate transformative solutions demonstrating evidence acquisition, evaluation and synthesis within the clinical context.

### 8.3. Key and transferable skills

On successful completion graduates should have developed the ability to:

- 8.3.1 **Autonomously** perform all appropriate clinical examinations proficiently, collecting biological, psychological and social information needed to evaluate the oral and related medical conditions for all patients
- 8.3.2 Demonstrate **initiative** and personal responsibility by autonomously **implementing and evaluating** the planning and delivery of preventive and interventional care as part of a holistic, comprehensive treatment plan.
- 8.3.3 **Autonomously adapt** their performance to multiple contexts providing clinical care to the highest ethical and technical standards in line with current knowledge and with the full and valid consent of patients.
- 8.3.4 **Clarify tasks** and make appropriate use of the wider team, co-ordinating overall treatment and care of patients and **initiating**, when appropriate, referral to a specialist in another area or a dental care professional
- 8.3.5 Incorporate a **critical ethical dimension** to their practice, managing the implications of ethical dilemmas in accordance with regulatory requirements.
- 8.3.6 Use personal **reflection to analyse self** and own actions.
- 8.3.7 Make connections between known and unknown areas, to allow for **adaptation** and change.

8.3.8 **Learn independently** in a spirit of critical enquiry and apply this to continuing professional development.

#### **8.4. Employment related skills**

On successful completion graduates should have developed:

8.4.1 After completion of the first 2 modules (Certificate level) the learner will have acquired the appropriate knowledge, skills and attitudes required of a General Dental Practitioner to deliver safe and effective Endodontics in a primary care setting (Level 1 service Restorative Dentistry commissioning document).

8.4.2 After completion of the first 4 modules (Diploma level) the learner will have acquired appropriate knowledge, skills and attitudes associated with a Dentist wishing to be considered as a Dentist with enhanced skills (DES) in Endodontics (Level 2 Restorative Dentistry commissioning document).

8.4.3 Completion of the dissertation module demonstrates a student's ability to formulate a clinical question, critically reflect and produce a dissertation on an area within the field of Endodontics, evidencing skills in knowledge acquisition, evaluation and synthesis.

#### **8.5. Practical skills**

On successful completion graduates should have developed:

8.5.1 After completion of the first 2 modules (Certificate level), the ability to diagnose, assess, treatment plan and appropriately manage patients requiring endodontic care in the primary care setting. The ability to assess, treatment plan and appropriately manage more complex cases requiring primary (orthograde) endodontic treatment including patients with concurrent periodontal and prosthodontic problems. In addition, preliminary skills to acquire, evaluate and critically appraise evidence and develop clinical decision making and critical reflection skills will be developed.

8.5.2 After completion of the first 4 modules (Diploma level), the ability to assess, treatment plan and appropriately manage patients requiring surgical treatment of endodontic problems, including cases where primary treatment has failed or iatrogenic problems exist. Skills in assessing and managing patients with endodontic problems due to trauma or resorption. The assessment and management of endodontic problems in children/adolescents. Further skills in

acquiring, evaluating and critically appraising evidence and developing clinical decision making and critical reflection skills.

8.5.3 After completion of all 5 modules (Master’s level) the ability to produce a project dissertation under supervision demonstrating clinical question formulation, evidence acquisition, evaluation and synthesis within a clinical context and an ability in decision making and critical reflection skills in relation to a patient requiring endodontics.

## 9. Admissions Criteria

All applicants must have GCSE (or equivalent) Maths and English at Grade C or above.

Entry Requirements for MSc Endodontics	
BDS	<p>Graduates should be practicing dentistry in the UK whilst undertaking the programme and hold full GDC registration as a dental practitioner, they should also have full professional indemnity and normally at least 2 years of clinical experience (full time equivalent).</p> <p>Places will then be allocated to successful candidates on a first come first served basis.</p>
Language Requirements	<p>Candidates will be required to be competent in English. Candidates whose first language is not English require IELTS 6.5 (with a minimum of 5.5 in each element) or equivalent in a secure English language test. If the candidate’s English language does not meet the above standard, they will be given the opportunity to complete one of the University’s pre-session English language courses.</p>

There are no progression routes from other postgraduate programmes. Claims for Accreditation of Prior Learning (APL) may be considered in line with the University of Plymouth policy

<https://www.plymouth.ac.uk/student-life/your-studies/essential-information/regulations>

The School welcomes applications from students with disability and support is discussed extensively during the admissions process, normally with the help of Disability Services (DS) and Occupational Health and Well-Being. Dialogue continues between tutors, academic staff, DS and Occupational Health practitioners throughout all stages of study and the Health and Conduct Group monitors any on-going issues as engagement with patients and the ability to maintain the health and safety of self and others is an important area of major concern.

## **10. Progression criteria for Final and Intermediate Awards**

For further information, please refer to the Academic Regulations, available at:

<https://www.plymouth.ac.uk/student-life/academic-regulations>

## **11. Exceptions to Regulations**

The following are exceptions to the normal University regulations and apply to the MSc Endodontics programme:

- Students are required to pass all elements of a module assessment at 40% and achieve an overall module mark of 50% in order to pass the module.

## **12. Transitional Arrangements**

N/A

**13. Mapping and Appendices: Programme Specification Mapping (PGT): module contribution to the meeting of Award Learning Outcomes.**

**Programme Specification Mapping (PGT): module contribution to the meeting of Award Learning Outcomes**

Tick those Award Learning Outcomes the module contributes to through its assessed learning outcomes. Insert rows and columns as required.

Module	Credits	C core																									Compensation Y/N	Assessment element(s) and weightings C1 - coursework P1 - practical				
			Knowledge & understanding						Cognitive & intellectual skills						Key & transferable skills						Employment related skills			Practical skills								
			8.1.1	8.1.2	8.1.3	8.1.4	8.1.5	8.2.1	8.2.2	8.2.3	8.2.4	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.3.1	8.3.2	8.3.3	8.3.4	8.3.5	8.3.6	8.3.7	8.3.8	8.4.1	8.4.2			8.4.3	8.5.1	8.5.2	8.5.3
ENDO711	30	C	x	x	x	x		x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	N	C1 (50%) P1 (50%)
ENDO712	30	C	x	x				x	x	x		x		x	x	x	x		x		x	x	x	x		x				N	C1 (50%) P1 (50%)	
<b>Learning Outcomes 60 credits</b>																																
ENDO721	30	C	x	x	x	x		x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	N	P1 (100%)	
ENDO722	30	C	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	N	P1 (100%)	
<b>Learning Outcomes 120 credits</b>																																
DIS732	60	C					x	x	x	x	x	x	x	x	x											x			x	N	C1(100%)	
<b>Learning Outcomes 180 credits</b>																																
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