

## Programme Specification (UG)

Awarding body / institution:	Queen Mary University of London
Teaching institution:	Queen Mary University of London
Name of award and field of study:	MSc in Experimental Oral Pathology (Oral Sciences)
Name of interim award(s):	PG Certificate in Experimental Oral Pathology (Oral Sciences) (60 credits) PG Diploma in Experimental Oral Pathology (Oral Sciences) (120 credits)
Duration of study / period of registration:	Full time / 1 academic year
QMUL programme code / UCAS code(s):	A4US
QAA Benchmark Group:	Dentistry
FHEQ Level of Award :	Level 7
Programme accredited by:	Not applicable
Date Programme Specification approved:	
Responsible School / Institute:	Institute of Dentistry

Schools / Institutes which will also be involved in teaching part of the programme:

N/A

Collaborative institution(s) / organisation(s) involved in delivering the programme:

N/A

### Programme outline

This one year full-time course is designed as an introduction to the principles of experimental pathology applied to oral disease. It is principally intended to provide grounding in experimental method for dental graduates who plan to follow either a career in academic dentistry or one of the clinical specialties. It also provides an opportunity for science graduates to learn about oral disease, in preparation for a career in dental research. The degree is awarded on the results of an examination and submission of a report based on a research project. The programme includes eight taught modules and a research project module. There is a structured course of seminars with associated practical work. The curriculum is designed around a core dealing with the structure and behaviour of cells and tissues in health and disease. This core begins with fundamental and general concepts of molecular and cell biology and continues with the application of these concepts to a consideration of oral and dental disease. Related disciplines such as oral microbiology and immunology are also covered.

Throughout the course, emphasis is placed on the evidence upon which the concepts are based and the way in which such evidence is obtained by observation and experiment. Particular value is placed on the format of the seminars in which students, are encouraged to actively participate.

## Programme Title: MSc in Experimental Oral Pathology (Oral Sciences)

Running in parallel with appropriate parts of the core course are several related series of seminars dealing with research methods and statistics and with techniques of fundamental importance to experimental pathology such as tissue culture, molecular biological techniques, immunoassay, immunocytochemistry and microscopy.

The full time campus programme is also open to undergraduate dental students who wish to (and are eligible to) intercalate a Masters degree into their BDS studies.

For these students there are entry criteria that differ from non-intercalating applicants - in addition to the equivalent English proficiency, intercalating students need to have:

1. Successfully completed at least three years of the BDS or equivalent dental course (for clinically based masters this must include the equivalent of one year of patient based teaching (in hospital/dental practices/ clinics)).
2. Passed BDS year 3 or 4 exams immediately prior to entry at the first opportunity.
3. Demonstrate a clear and unequivocal interest in the field by written application and/or interview.
4. For students internal and external to QMUL it is confirmed that the beginning of the first term for the following year starts after all the QMUL Masters assessments are completed.

### Aims of the programme

The general aims of the taught postgraduate courses offered in the Institute of Dentistry are:

- Provide full time and part time opportunities for those wishing to develop their skills and understanding in oral health related sciences.
- Develop the research and service careers of dentists and professionals complementary to dentistry.

The general objectives of the taught postgraduate courses are to provide students with the skills to:

- conduct literature searches, and evaluate original published research.
- design research protocols, execute a supervised research project, analyse and report findings supported by references.
- demonstrate a range of transferrable and specialised skills.

The specific course objectives are to enable students to:

- understand the basic principles of the range of techniques applied to study oral biology
- to apply of these techniques in the study of oral tissue structure and peripheral cell function in health and disease tissues
- understand the basic pathological processes underlying oral disease.

### What will you be expected to achieve?

On successful completion of the programme students will be expected to have gained a thorough understanding of the biology of the oral cavity with respect to health and disease and be confident in their ability to design research questions and carry out research programs. The programme outcomes are referenced to the QAA benchmark statements and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland. These relate to a typical student. The SEEC credit level descriptors for Further and Higher Education 2003 and QMUL Statement of Graduate Attributes have been used as the guide in the design of the curriculum.

**Please note that the following information is only applicable to students who commenced their Level 4 studies in 2017/18, or 2018/19**

In each year of undergraduate study, students are required to study modules to the value of at least 10 credits, which align to one or more of the following themes:

- networking
- multi- and inter-disciplinarity
- international perspectives
- enterprising perspectives.

These modules will be identified through the Module Directory, and / or by your School or Institute as your studies progress.

Academic Content:	
A 1	Current concepts of selected topics in Experimental Oral Pathology.
A 2	Knowledge of the biology and pathology as relevant to health and disease in the oral cavity.
A 3	Write accurate and coherent accounts of academic and clinical research.

Disciplinary Skills - able to:	
B 1	Show enthusiasm for studying and understanding biological research with respect to the oral cavity.
B 2	Critically read scientific papers, understand the methods used in investigations and the significance of results.
B 3	Acquire presentation skills that allows for dissemination of knowledge in various forms.

Attributes:	
C 1	Write an in depth report based on laboratory work carried out by the student.
C 2	Engage critically with the global literature in the field of oral pathology.
C 3	Acquire enhanced skills in communication, research capacity and information dissemination expertise.

**How will you learn?**

The programme aims to promote teaching and learning enriched by original scholarship and dental research, to encourage

## Programme Title: MSc in Experimental Oral Pathology (Oral Sciences)

students to become independent learners. Students will accept responsibility for their own learning and will be encouraged to develop powers of critical thought and reflection. Key skills in information technology and oral and written presentations will be enhanced. The course will offer students the opportunity to become familiar with the issues of experimental study design, laboratory-based research, data analysis and critical thought.

In addition to the formal seminar programme, time is set aside for particular readings and reviews, discussion and problem solving for student projects, for practical exercises, and for feedback and evaluation of the course itself. Students will receive a course reading list at the start of teaching.

The students will also be offered opportunities to attend several annual research days which will support their learning objectives around experimental design and presentation skills (William Harvey, Stem cell Symposium and any others which become available during the year).

Research active staff will give seminars on their work with special emphasis on the experimental design of the studies. The course aims to offer a high teacher/student ratio so that access to advice and ease of communication can be assured.

### How will you be assessed?

Assessment will be:

- Examination using short answers
- Extended essay
- Practical Portfolio
- Poster presentation
- Project thesis

### How is the programme structured?

Please specify the structure of the programme diets for all variants of the programme (e.g. full-time, part-time - if applicable). The description should be sufficiently detailed to fully define the structure of the diet.

This one year full-time course (180 credits) is designed as an introduction to the principles of experimental pathology applied to oral disease. It is principally intended to provide grounding in experimental method for dental graduates who plan to follow either a career in academic dentistry or one of the clinical specialties. It also provides an opportunity for science graduates to learn about oral disease, in preparation for a career in dental research. The degree is awarded on the results of an examination and submission of a report based on a research project.

There is a structured course of seminars with associated practical work. The curriculum is designed around a core dealing with the structure and behavior of cells and tissues in health and disease. This core begins with fundamental and general concepts of cell biology and continues with the application of these concepts to a consideration of oral and dental disease. Related disciplines such as oral microbiology and immunology are also covered.

Throughout the course, emphasis is placed on the evidence upon which the concepts are based and the way in which such evidence is obtained by observation and experiment. Particular value is placed on the format of the seminars in which students are encouraged to actively participate.

Running in parallel with appropriate parts of the core course are several related series of seminars dealing with research methods and statistics and with techniques of fundamental importance to experimental pathology such as tissue culture, molecular biological techniques, immunocytochemistry, light and electron microscopy.

The course structure is tabulated below.

Academic Year of Study FT - Year 1

Programme Title: MSc in Experimental Oral Pathology (Oral Sciences)

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Molecular Organisation of the Eukaryotic Cell	DIN7021	15	7	Compulsory	1	Semester 1
Biology and Immunobiology of Oral Tissues	DIN7023	15	7	Compulsory	1	Semesters 1 & 2
Fundamental of Research Methods	DIN7011	15	7	Compulsory	1	Semesters 1 & 2
Techniques in Cell and Molecular Biology	DIN7022	15	7	Compulsory	1	Semesters 1 & 2
Cellular Pathology	DIN7024	15	7	Compulsory	1	Semesters 1 & 2
Inflammation and Immunology (General and Oral)	DIN7025	15	7	Compulsory	1	Semester 2
Oral Pathology and the Oral microbiome	DIN7028	15	7	Compulsory	1	Semesters 1 & 2
Laboratory Techniques	DIN7027	15	7	Compulsory	1	Semester 2
Level 7 Research Project	DIN7000	60	7	Core	1	Semesters 1-3

### What are the entry requirements?

A recognised degree in dentistry, medicine or biological sciences with preferably one year post-qualification experience.

A minimum IELTS score of 6.5 overall with 6.0 in each of Writing, Listening, Reading and Speaking or equivalent if English is not your first language.

### How will the quality of the programme be managed and enhanced? How do we listen to and act on your feedback?

The Student Voice Committee (SVC) provides a formal means of communication and discussion between schools/institutes and its students. The SVC Committee consists of student representatives from each year in the school/institute together with appropriate representation from staff within the school/institute. It is designed to respond to the needs of students, as well as act as a forum for discussing programme and module developments. The SVC meet regularly throughout the year.

All lectures will have feedback documentation.

Each school/institute operates a Learning and Teaching Committee, or equivalent, which advises the School/Institute Director of Taught Programmes on all matters relating to the delivery of taught programmes at school level including monitoring the application of relevant QM policies and reviewing all proposals for module and programme approval and amendment before submission to Taught Programmes Board. Student views are incorporated in the committee's work in a number of ways, such as through student membership, or consideration of student surveys.

Programme Title: MSc in Experimental Oral Pathology (Oral Sciences)

All schools/institutes operate an Annual Programme Review (APR) of their taught undergraduate and postgraduate provision. APR is a continuous process of reflection and action planning which is owned by those responsible for programme delivery who work throughout the year to monitor academic standards and to improve the student experience. Students' views are considered in this process through analysis of the Postgraduate Taught Experience Survey (PTES) and module evaluations.

### **What academic support is available?**

Students undergo an induction week at the start of the programme.

Module leads and module teachers are available to offer academic support.

Research project supervisors provide support during the research project.

### **How inclusive is the programme for all students, including those with disabilities?**

The Institute of Dentistry will provide the following:

#### **Student Support**

The Student Support Office (SSO) offers confidential, independent, and non-judgmental advice on personal, academic, and financial matters, including university procedures and student funding. The SSO is committed to ensuring students receive the support they need to succeed.

#### **Disability and Dyslexia Service (DDS)**

Queen Mary's Disability and Dyslexia Service (DDS) supports all students with disabilities, learning difficulties, or mental health conditions whether full-time, part-time, undergraduate, postgraduate, UK, or international students across all campuses. The DDS provides guidance and assistance in the following areas:

- Assessment for specific learning difficulties (e.g., dyslexia)
- Applying for Disabled Students' Allowance (DSA).
- Arranging DSA assessments of need
- Organizing special examination arrangements
- Access to loaned equipment (e.g., digital recorders)
- Specialist one-to-one study skills tuition
- Providing course materials in alternative formats
- Educational support workers (e.g., note-takers, readers)
- Specialist mentoring for students with mental health issues or Autism Spectrum Disorders

#### **Support for Specific Learning Disabilities:**

- Regular one-to-one study skills sessions with a dyslexia specialist
- Lecture notes provided in advance through QMPlus or email
- Q-Review lecture access, or permission to record non-Q-Review sessions (e.g., Clinical Skills Laboratory sessions on Phantom Heads/the use of Haptics)
- Specialist software with text-to-speech functionality to aid concentration and reduce fatigue

#### **Support for Physical Disabilities:**

- Speech recognition software for dictation
- Accessible lab and clinic environments, including ground-floor clinics, lifts to higher floors, and ramps

#### **Inclusive Education**

We are committed to providing all students with equal access to learning opportunities. Inclusivity ensures that all students are valued and supported, regardless of their background or circumstances, in line with the QMUL 2030 Strategy, which emphasizes "progressive, inclusive" teaching and curriculum design centred on the student experience.

Programme Title: MSc in Experimental Oral Pathology (Oral Sciences)

To achieve these goals, inclusive pedagogical practices recognize the importance of diverse knowledge, identities, and ways of learning. This approach shifts the focus from student deficits to individual abilities and needs, ensuring that institutional practices do not alienate certain groups of students.

### Programme-specific rules and facts

None.

### Links with employers, placement opportunities and transferable skills

Candidates are expected to take up full time teaching, research or industry positions after completion of the course.

After taking the course the candidate will have a good scientific base and transferable advanced technical and research skills which will be attractive to a future employer.

This mix of skills is very unique in the dental field and should create world opinion leaders in the field of dental technology and materials.

## Programme Specification Approval

**Person completing Programme Specification:**

Mrs Lorraine Low, Quality & Assessments Officer

**Person responsible for management of programme:**

Prof Angray Kang

**Date Programme Specification produced / amended by School / Institute Education Committee:**

31 Oct 2024

**Date Programme Specification approved by Taught Programmes Board:**