Programme Specification (PG)

Awarding body / institution:	Queen Mary University of London
Teaching institution:	Queen Mary University of London
Name of final award and programme title:	MSc in Oral Biology
Name of interim award(s):	PG Certificate in Oral Biology (60 credits) PG Diploma in Oral Biology (120 credits)
Duration of study / period of registration:	1 Calendar Year
Queen Mary programme code(s):	PMSF-QMDENT1 PSOBI (A4S3)
QAA Benchmark Group:	Dentistry
FHEQ Level of Award:	Level 7
Programme accredited by:	N/A
Date Programme Specification approved:	2 Apr 2025
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

Oral Biology is the umbrella term for a range of basic sciences fundamental for understanding of the underlying scientific principles relevant to developing modern dentistry. These include dental anatomy, oral physiology, dental biophysics. Other subjects will include the basic biochemistry in relation to dentistry, chemistry of bone and tooth biominerals and components, aetiology of dental caries and erosion, saliva biochemistry, oral microbiology, and dental materials science, modern 2D and 3D X-ray imaging. In additional to basic science lectures, there will also be lectures from practicing clinicians on current problems in modern clinical dentistry. Students will be introduced to the role of the dental industry in the application of the oral sciences in the development of innovative dental treatments. Key to this proposal is to introduce students to the concepts of Minimal Invasive Dentistry, particularly the development of therapeutic approaches to delivery of 21st century dentistry. A research project will be a significant component of this course. A key element to this course is that it will be delivered within a clinical context, stressing the importance of a scientific approach to the delivery of dental care.

It is envisaged that this course should be structured in order to be accessible to both dental and basic/applied science graduates, who may in future be responsible for teaching of these or related subjects, and/or may need a greater understanding of the subject in order to develop their future academic or industrial research careers.

The core staff team will be responsible for the delivery of the main modules. Other staff who are both clinical and non-clinical contribute to the delivery of lectures for this course. The core staff team will be responsible for the supervision of the Research Projects. The core staff have considerable experience of supervision of research projects of this nature, and PhD supervision. The projects will be carried out in the Research Laboratories of Dental Physical Sciences Unit (Centre for Oral Bioengineering formerly Centre) based at Mile End.

Aims of the programme

To provide a conceptual understanding of the basic biological sciences underlying dentistry, for both basic science graduates and clinically qualified graduates.
This programme aspires to produce highly skilled, motivated, creative and team-work oriented graduates who want to specialise in Oral Biology or a related field, in an academic or industrial environment.

The overall aims of the programme are:
• to provide a PGT level dental materials education of a standard recognised to be amongst the highest in UK institutions.
• to enable all our students to achieve their academic potential by providing a stimulating, friendly and supportive environment.
• to prepare our graduates with discipline-specific knowledge and transferable skills that will equip them for employment and continued professional development through self-learning.
• provide an understanding of the basic sciences underlying Oral Biology for undertaking research in this field.
• develop research skills and methods relevant to dental materials.
• provide a suitable entry qualification for PhD and DClinDent programmes in Oral Biology and related areas.

Specific aims include:
• analytical, creative, organisational, practical and communication skills.
• problem-recognition and solving abilities.
• competence in discipline-specific topics which contribute to the solution of problems applied to oral biology.
• an appreciation of how theoretical and practical approaches can be synthesized to arrive at optimal solutions.
• an understanding of the relationship between their discipline and social, economic and environmental issues and constraints
• the detailed skills needed to undertake a research, development or design project in depth, understanding the technical. financial and time limitations.

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.

What will you be expected to achieve?

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills and other attributes. The programme outcomes are referenced to the relevant QAA benchmark statement(s) (see above) and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008), and relate to the typical student. Additionally, the SEEC Credit Level Descriptors for Further and Higher Education 2010 and Queen Mary Statement of Graduate Attributes have been used as a guiding framework for curriculum design. Students may return to an academic environment and will be trained to provide up-to-date knowledge for teaching of Oral Biology to clinical dental students. In addition students will have been given an ideal preparation for undertaking a PhD in a related discipline or DClinDent in a clinical specialty.

Programme Title: MSc in Oral Biology

Academic Content:	
A 1	Gain in-depth knowledge in current concepts in Oral Biology as applied to the oral cavity.
A 2	Gain in-depth knowledge of Oral Biology as applied for practical purposes in dentistry.
A 3	Write coherent argued accounts on current research areas in Oral Biology.
A 4	Gain in-depth knowledge of the oral cavity in its healthy and diseased state.

Disciplinary Skills - able to:	
B 1	Show an enthusiasm for studying developments in science, particularly in the area of Oral Biology.
B 2	Critically analyse scientific papers, and assess the problem being addressed, the basis of the methods of study, and assess the significance of the results.
B 3	Present scientific information in a variety of formats.
B 4	Undertake independent research on a topic relating to Oral Biology.
B 5	Write coherent argued accounts on current research areas in Oral Biology.

Attributes:	
C 1	Take an investigational approach to problem solving.
C 2	Report information in written and verbal form at a professional level.
C 3	Undertake independent research using state of the art laboratory facilities and analysis methods.

How will you learn?

Teaching and learning will comprise of lectures Journal Clubs, projects, given by Academic Staff mostly of the Dental Physical Sciences Unit, Centre for Oral Bioengineering, Institute of Dentistry through a wide range of different interactions including lectures, tutorials, laboratory classes and project supervision. Also independent personal study is anticipated as part of this degree. Students will attend weekly Oral Biology student meetings, hosted by research active academic staff to discuss current new developments in Oral Biology related dental research. This will include discussions with both scientists and clinicians in a world leading (as ranked by QS score) Centre for Oral Bioengineering in the Institute of Dentistry.

Students will also have access to all Queen Mary online lectures systems. All learning resources, including assessment submissions and feedback will be via the Queen Mary virtual learning environment, QMplus.

Students on this programme will share, modules with students on other programmes within the Institute to benefit from study within the overall context of the clinical dental environment of a University Dental School.

How will you be assessed?

Modules are assessed to test students' abilities relevant to the stated learning outcomes. Assessment includes, but is not limited to, coursework and summative examinations. Full details of assessment will be outlined to students within the individual QMPlus module site.
All examinations will take place in the standard examination periods May/June (for Semester 2 taught modules) and January (for Semester 1 taught modules). All written examinations may use a mixture of short essay and long essay questions.

Assessment for the Level 7 Research Project Module will include an oral viva, project presentation and the final thesis. During the project, students will present interim project presentations to an audience of students and staff in preparation for the final viva. The thesis will be submitted in December, and all project components will be assessed in Jan. with the result reported at the next SEB for Jan. starts.

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.

There are 8 taught modules totaling 120 credits. There is also a 60 credit project module. Four taught modules start in Semester 2 (in January), then a further 4 taught modules start in Semester 1 (starting in September). All taught modules are compulsory. Preparatory study for the project module is undertaken during Semester 2, with the majority of the project carried out during Semester 3 (Jun-Sept). This supervised research project may be either laboratory or literature based.

Academic Year of Study FT - Year 1

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Oral Pathology and the Oral Microbiome	DIN7028	15	7	Compulsory	1	Semester 2
Dental Hard Tissues and their Microenvironment	DIN7151	15	7	Compulsory	1	Semester 2
Biomineralisation	DIN7154	15	7	Compulsory	1	Semester 2
Biology of Oral Tissues	DIN7023	15	7	Compulsory	1	Semester 2
Fundamentals of Research Methods	DIN7011	15	7	Compulsory	1	Semesters 2 & 1
Level 7 Research Project	DIN7000	60	7	Core	1	Year

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Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Properties of Dental Materials	DIN7008	15	7	Compulsory	1	Semester 1
Minimally Invasive Dentistry	DIN7152	15	7	Compulsory	1	Semester 1
Introduction to Oral Biology	DIN7156	15	7	Compulsory	1	Semester 1

What are the entry requirements?

The minimum entry requirement is a 2.2 UK degree or the overseas equivalent in a relevant subject. Degree disciplines such as Medicine, Dentistry, Chemistry, Biology or related subjects in the Sciences will be considered.

If your first language is not English, you must provide evidence of your English language proficiency. Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum overall IELTS score of 6.5 with a writing score of 6.0 at the start of the course.

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

The Dental Quality Assurance Committee oversees all aspects of the quality of the programme including module evaluations, external examiner comments and regularly reviews the assessment criteria. Feedback from Module evaluations and the Postgraduate Taught Experience Survey (PTES) are also considered by this committee.

We also operate an Annual Programme Review of our taught undergraduate and postgraduate provision. The process is normally organized at a School-level basis with the Dean for Dentistry responsible for the completion of the school's Annual Programme Reviews. Students' views are considered in this process through analysis of the PTES and module evaluations. Queen Mary also carries out a Periodic Review of education programmes within the Institute of Dentistry and the report, commendations and recommendations are considered by the Quality Assurance Committee and the Dental Education Committee.

The Student Voice Committee (SVC) provides a formal means of communication and discussion between Schools and students. The 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 meets regularly throughout the year.

Each school operates a Learning and Teaching Committee (Dental Education Committee), which advises the Dean for Dentistry 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 into this Committee's work in a number of ways, such as through student membership, or consideration of Postgraduate Taught Experience Student surveys (PTES).

What academic support is available?

Your wellbeing is very important to us. The Student Support Office (SSO) within the Institute of Dentistry has a well developed team of staff together with your Course and personal tutors to help and guide you through the MSc programme. They are keen to make sure that you are offered confidential, independent and non judgemental advice on matters ranging from personal problems and academic issues to university procedures and financial matters such as student funding.

You will receive a series of Handbooks which will outline the appropriate learning outcomes, academic requirements, and relevant assessment and deadlines for completion of coursework and submission. These are constantly updated and placed on QMPlus for continued reference.

• Personal tutor arrangements: The programme organiser will act as a personal tutor to the students.
• The IoD Student Support Office at the Institute: Head of Student Support and the Senior Tutor
• Programme induction: There will be a formal induction at the start of the programme with the programme organisers and the tutors present, to welcome the students and to introduce the various components of the programme. There will also be a tour of the facilities.

Programme-specific rules and facts

N/A

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.

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.

Links with employers, placement opportunities and transferable skills

We have links with GC(UK) (The UK division of a Japanese dental product company) and GlaxoSmithKline (Weybridge), who will provide some materials for the course. GC (UK) run training courses at their European HQ in Leuven, and discussion are underway to enable our students to attend these.

Programme Specification Approval

Person completing Programme Specification:	Prof. Paul Anderson
Person responsible for management of programme:	Prof. Paul Anderson
Date Programme Specification produced / amended by School / Institute Learning and Teaching Committee:	19 March 2025
Date Programme Specification approved by Taught Programmes Board:	2 Apr 2025