Plymouth University

Peninsula School of Dentistry

Programme Specification

MSc Periodontology (4648)

January 2018

Date of approval: November 2016
Date of implementation: January 2018
Year of first award: 2021
1. **MSc Periodontology**

   **Final award title:** MSc Periodontology

   **Intermediate award titles:** Postgraduate Diploma Periodontology

   Postgraduate Certificate Periodontology

   **UCAS code:** N/A
   **JACS code:** A400 Clinical Dentistry

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

   **Teaching institution(s):** Plymouth University Peninsula Schools of Medicine & Dentistry

3. **Accrediting body(ies)**

   Summary of specific conditions/regulations

   Date of re-accreditation

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

   In the UK Periodontology is a dental speciality recognised by the General Dental Council. The speciality of Periodontology deals with the diagnosis and management of pathology of the periodontal tissues (gums) and its consequences. 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 periodontal treatment as part of their daily practice. Those with additional training and enhanced skills may deliver more complex services in a dental practice setting, including the provision of dental implants.
Data show that the provision of periodontal 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 periodontal disease in addition to practical simulated clinical skills. Consultants and Specialists in Restorative Dentistry and/or Periodontology will remotely supervise clinical care, provided by the practitioner on 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 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 at level 2 (see Appendix A) as more clinical care is 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 periodontal care in a primary care setting (Level 1). Teaching in successful team-working will support practitioners wishing to make better use of the increased scope for other members of the Dental team, such as dental nurses and hygienist/therapists, to assist with the provision of periodontal treatment.

The Diploma in Periodontology builds on the Certificate stage and 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 Periodontology (Level 2). In addition, they will possess the knowledge and skill levels recommended by the GDC for any practitioner wishing to start to provide simple implant treatment.

The Periodontology programme is designed not only to develop a GDP’s knowledge and skills in Periodontology 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 Masters degree in Periodontology 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 Periodontology 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 Periodontology in the following areas: -

1. Diagnosis
2. Treatment planning
3. Non-surgical and surgical skills
4. Management of the medically compromised patient
5. On-going maintenance, including Team-working
5. Relevant QAA Subject Benchmark Group(s)

The programme has been developed with reference to the relevant policies and procedures related to Plymouth University and external agencies such as the Quality Assurance Agency. The “Minimum Recommended Standards in Implant Training”, produced by the Faculty of General Dental Practice (FGDP) have been used to inform the curriculum and are mapped accordingly in Appendix C.

Although there is no specific QAA Subject Benchmark for Periodontology, reference has been made to the Framework for Higher Education Qualifications of UK degree-awarding bodies (2014), using descriptors for a higher education qualification at level 7: Master’s degree. [http://www.qaa.ac.uk/en/Publications/Documents/qualifications-frameworks.pdf](http://www.qaa.ac.uk/en/Publications/Documents/qualifications-frameworks.pdf)

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:**

- **PID711**
  Foundations of Periodontology
  (30 Credits)

- **PID712**
  Periodontology in Practice and an introduction to Implantology
  (30 Credits)

**Postgraduate Diploma stage modules:**

- **PID721**
  Periodontal Surgery
  (30 Credits)

- **PID722**
  Advanced Implantology
  (30 Credits)
In accordance with Plymouth University 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 Periodontology, students will need to satisfy the academic standards for the required modules as outlined in the Module Records. The stages and their associated modules are described below:

**STAGE 1: POSTGRADUATE CERTIFICATE IN PERIODONTOLOGY**

At the end of this stage, the learner will be expected to be able to:

1. Demonstrate a deep and systematic understanding of the key concepts and evidence-base relating to the diagnosis of and treatment planning of:

   - Patients of all ages undergoing treatment for periodontal disease
   - Patients undergoing treatment for periodontal disease where there are orthodontic, prosthodontic and/or endodontic considerations
   - Patients for whom dental implants are planned
   - Patients undergoing treatment for periodontal disease where there are systemic health considerations.

2. Critically analyse and evaluate the available evidence that supports a range of periodontal/restorative techniques and related clinical fields, applying it where appropriate and recognising where alternative approaches are required.

3. Critically analyse and evaluate the available evidence that supports a range of techniques for the treatment of periodontal disease in patients undergoing treatment for periodontal disease where there are orthodontic, prosthodontic, endodontic or systemic health considerations, or where dental implants are planned, applying it where appropriate and recognising where alternative approaches are required.
4. Apply critical reflection and synthesis of knowledge gained through the course and previous clinical experience, to safely and proficiently demonstrate effective treatment techniques for the management of periodontal disease or provision of dental implants in a wide range of scenarios.

5. To demonstrate critical analysis and synthesis of evidence for the application of non-surgical periodontal techniques; combined with critical reflection and analysis on the validity and appropriateness of treatment and management decisions made.

6. To demonstrate critical analysis and synthesis of evidence for the application of non-surgical periodontal techniques or treatment with dental implants; combined with critical reflection and analysis on the validity and appropriateness of treatment and management decisions made.

7. To demonstrate the ability to undertake non-surgical periodontal treatment in a simulated environment.

**Module 1 - PID711 Foundations of Periodontology**

This module covers key concepts underpinning the delivery of Periodontal care, enabling learners to develop a systematic understanding and knowledge of the subject including relevant basic sciences, diagnosis, treatment planning, non-surgical treatment. It enables learners to reflect upon their current practice and become critically aware of current problems and areas with new developments. It also allows learners to develop a comprehensive understanding of fundamental skills in subject areas 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 – PID712 Periodontology in practice and an introduction to implantology**

This module enables students to develop their skills and diagnosis and treatment planning for more complex patients, showing originality in the application of knowledge as well as how established literature can be applied to clinical scenarios. It introduces the concept of treatment with dental implants and their
aftercare/maintenance. Important issues such as Consent, relevant Standards for care and governance techniques are also taught.

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

**STAGE 2; POSTGRADUATE DIPLOMA IN PERIODONTOLOGY**

At the end of this stage, in addition to the previous learning outcomes, the learner will be expected to be able to:

1. Demonstrate a deep and systematic understanding of the key concepts and evidence-base relating to:
   - periodontal surgery, including indications for surgery, techniques and follow-up care.
   - the provision of implant-borne restorations, including assessment of the patient, planning, surgical techniques, including soft and hard tissue grafting, and follow-up care.

2. Critically analyse and evaluate the available evidence that supports the use of surgery, when appropriate, including the use of implant-borne prostheses, and recognising where alternative approaches may be required.

3. To demonstrate critical analysis and synthesis of evidence for the application of surgical periodontal techniques and provision of implant-borne prostheses; combined with critical reflection and analysis on the validity and appropriateness of treatment and management decisions made.

4. Using critical reflection and synthesis of knowledge gained through the course learning outcomes and previous clinical experience, to safely and proficiently demonstrate:
   - effective surgical treatment techniques for the management of periodontal disease and its sequelae
   - crown lengthening surgery
   - the provision of dental implants.

**Module 3 - PID721 Periodontal Surgery**

This module builds on existing knowledge and newly acquired skills from modules 1 and 2 and introduces more complex periodontal treatment options, including the surgical management of bone loss due to periodontal disease and elective surgery to assist prosthodontic treatment. They will apply knowledge to more complex clinical
situations where surgery may be indicated, using research to create and guide treatment decisions. They also develop essential skills such as aseptic technique and local anaesthesia.

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

Module 4 – PID722 Advanced Implantology
This module augments knowledge and newly acquired skills from previous modules, relating to treatment with dental implants. Students will develop a systematic knowledge of the literature that guides current practice, and apply their appraisal skills to critically evaluate literature in areas where new insights are being made. It equips students to plan treatment with dental implants, and practice simulated surgical placement of implants, hard and soft tissue augmentation and techniques for restoring implants, under simulated conditions.
Teaching is delivered through seminars and by demonstrations and practical training in the Simulated Dental Learning Environment (SDLE).

STAGE 3; MASTER’S DEGREE IN PERIODONTOLOGY
At the end of this stage, in addition to the learning outcomes from previous modules, the learner will be expected to be able to:

1. Systematically and critically review relevant theory and methodology in the design and development of an independent project
2. Provide evidence of skills in project design, development and evaluation, including question formulation; evidence acquisition; evidence evaluation; evidence synthesis within a clinical context; clinical decision-making and critical reflection skills and their relevance to professional practice
3. Demonstrate self-direction and originality in tackling and solving problems in the conduct of a project that is methodologically and ethically sound
4. Critically evaluate and reflect upon their own strengths, limitations and performance with reference to the design, development, organisation and write up of the project and the clinical outcomes achieved
5. Present a logically argued and clearly written project report that will aim to enhance knowledge and understanding of an area of practice at an advanced level

Module 5 – DIS732 Dental Programmes 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 Periodontology and Implant dentistry.

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 periodontal disease and undergoing treatment for this or treatment involving dental implants.

2. Critically analyse and evaluate the available evidence that supports diagnosis, treatment planning and treatment for periodontal disease or with dental implants, 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 periodontal disease and implant treatment 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 periodontology and implant dentistry, 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

1. After completion of the first 2 modules (Certificate level) the learner will develop a deep and systematic understanding of the nature of periodontal disease, its non-surgical treatment in both “simple” and more complex situations (including where the involvement of other relevant disciplines is required) and the theory underpinning the use and maintenance of dental implants.

2. After completion of the first 4 modules (Diploma level) the learner will, in addition to the above, have knowledge and understanding of the theory behind surgical treatment of periodontal disease, and the planning and delivery of treatment with dental implants.

3. Completion of the dissertation module will equip students with the knowledge required to obtain and critically appraise research relevant to their self-development.

8.2. Cognitive and intellectual skills

1. After completion of the first 2 modules (Certificate level) the learner will be able to apply their knowledge of the theory underpinning diagnosis, pathology and treatment to a range of conditions requiring non-surgical treatment, including maintenance of patients previously treated for periodontal disease or dental implants. They will be able to formulate questions, obtain and evaluate relevant literature to allow them to consider different approaches to clinical problems commonly encountered in this area.
2. After completion of the first 4 modules (Diploma level) the learner will, in addition to the above, be able to apply their knowledge and understanding of the theory behind the surgical treatment of periodontal disease, and the planning of treatment with dental implants. They will be able to critically evaluate and formulate evidence-based treatment decisions and identify solutions to problems routinely encountered in practice.

3. Completion of the dissertation module will equip students with the skills required to identify, obtain and critically appraise research relevant to their self-development. They will be able to evaluate critically complex, incomplete or contradictory evidence/data and judge the appropriateness of the enquiry methodologies used and conclusions made. They will be able to recognise and argue for alternative approaches using critical reflection and appraisal of the evidence in relation to periodontology and apply evidence-based developments at a high level of abstraction within the clinical context.

8.3. **Key and transferable skills**

1. After completion of the first 2 modules (Certificate level) the learner will possess the qualities and transferable skills to solve problems while exercising personal responsibility. They will be able to consider different approaches to clinical problems commonly encountered in this area, and act autonomously and responsibly.

2. After completion of the first 4 modules (Diploma level) the learner will be able to exercise initiative in the management of a wide range of clinical situations, and make evidence-based clinical decisions for patients requiring complex care.

3. Completion of the dissertation module will equip students with the ability to self-direct and show initiative when faced with complex problems. They will be able to act autonomously and responsibly and identify and develop their skills during their future career.
8.4. **Employment related skills**

On successful completion graduates should have developed:

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 Periodontal treatment in a primary care setting (approximately Level 1 service Restorative Dentistry commissioning document).

2. After completion of the first 4 modules (Diploma level) the learner will have acquired appropriate knowledge, skills and attitudes required of a Dentist wishing to be considered as a Dentist with enhanced skills (DES) in Periodontology (approximately Level 2 Restorative Dentistry commissioning document) and the knowledge and skills in a simulated environment necessary to commence simple Implant treatment.

3. Completion of the dissertation module demonstrates a students ability to formulate a clinical question, critically reflect and produce a dissertation on an area within the field of Periodontology and Implant Dentistry, evidencing skills in knowledge acquisition, evaluation and synthesis.

8.5. **Practical skills**

On successful completion graduates should have developed:

- At the Certificate stage, the ability to diagnose, assess, treatment plan and appropriately manage patients requiring periodontal care in the primary care requiring non-surgical periodontal therapy. The ability to assess, treatment plan and appropriately manage more complex cases in the primary care setting including patients with concurrent occlusal, orthodontic, endodontic and prosthodontics problems. The ability to assess and splint periodontally involved teeth, diagnose and manage peri-implant pathology. In addition, preliminary skills to acquire, evaluate and critically appraise evidence and develop clinical decision making and critical reflection skills will be developed.
• At the Diploma stage, the ability to assess, treatment plan and appropriately manage patients requiring surgical treatment of periodontal pocketing, hard or soft tissue grafting or dental implant treatment. Further skills in acquiring, evaluating and critically appraising evidence and developing clinical decision making and critical reflection skills.

• At dissertation 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 periodontal and/or Implant care.

9. Admissions Criteria, including APCL, APEL and DAS arrangements

<table>
<thead>
<tr>
<th>Entry Requirements for MSc Periodontology and Implant Dentistry</th>
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<tr>
<td>BDS</td>
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There are no progression routes from other postgraduate programmes. Claims for Accreditation of Prior Learning (APL) may be considered in line with the Plymouth University policy: [https://www.plymouth.ac.uk/student-life/your-studies/essential-information/regulations](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 Assist Service (DAS) and Occupational Health and Well-Being. Dialogue continues between tutors, academic staff, DAS 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
None

12. Transitional Arrangements
N/A

13. Mapping and Appendices:
   13.1. ILO’s against Modules Mapping

<table>
<thead>
<tr>
<th>FHEQ Descriptors</th>
<th>Subject Benchmark(s)</th>
<th>Programme Aims</th>
<th>Programme Outcomes</th>
<th>Core Modules linked to outcomes</th>
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<td><strong>Students will have demonstrated:</strong></td>
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<tr>
<td>A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights at or informed by the forefront of their academic disciplines, field of study or area of professional practice;</td>
<td>n/a</td>
<td>1,2,3</td>
<td>8.1.</td>
<td>PID711, PID712, PID721, PID722</td>
</tr>
<tr>
<td>A comprehensive understanding of techniques applicable to their own research or advanced scholarship;</td>
<td>n/a</td>
<td>1,2,3,4</td>
<td>8.2.</td>
<td>PID711, PID712, PID721, PID722, DIS732</td>
</tr>
<tr>
<td>Originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create an interpret knowledge in the discipline;</td>
<td>n/a</td>
<td>1,2,3,4</td>
<td>8.2, 8.3.</td>
<td>PID711, PID712, PID721, PID722, DIS732</td>
</tr>
<tr>
<td>Conceptual understanding that enables the student (a) to evaluate critically current research and advanced scholarship in the discipline</td>
<td>n/a</td>
<td>1,2,3,4</td>
<td>8.2.</td>
<td>PID711, PID712, PID721, PID722</td>
</tr>
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<td>(b) to evaluate methodologies and develop critiques of them and where appropriate to propose new hypotheses.</td>
<td>n/a</td>
<td>1,2,3,4</td>
<td>8.1, 8.2, 8.3</td>
<td>DIS732</td>
</tr>
<tr>
<td><strong>Students will be able to:</strong></td>
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<td>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;</td>
<td>n/a</td>
<td>1,2,3,4</td>
<td>8.2, 8.3</td>
<td>PID711, PID712, PID721, PID722, DIS732</td>
</tr>
<tr>
<td>Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level;</td>
<td>n/a</td>
<td>1,2,3,4</td>
<td>8.2</td>
<td>PID711, PID712, PID721, PID722, DIS732</td>
</tr>
<tr>
<td>Continue to advance their knowledge and understanding, and to develop new skills to a high level.</td>
<td>n/a</td>
<td>1,2,3,4</td>
<td>8.2</td>
<td>PID711, PID712, PID721, PID722, DIS732</td>
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<td>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;</td>
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<td>1,2,3,4</td>
<td>8.2, 8.3</td>
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<td>Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level;</td>
<td>n/a</td>
<td>1,2,3,4</td>
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</tbody>
</table>
### LEVEL 7

<table>
<thead>
<tr>
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<th>Programme Outcomes</th>
<th>Core Modules linked to outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to advance their knowledge and understanding, and to develop new skills to a high level.</td>
<td>n/a</td>
<td>1,2,3,4</td>
<td>8.2, 8.3.</td>
<td>PID711 PID712 PID721 PID722 DIS732</td>
</tr>
<tr>
<td><strong>Students will also have:</strong> The qualities and transferable skills necessary for employment requiring (a) the exercise of initiative and personal responsibility; (b) decision-making in complex and unpredictable situations; (c) the independent learning ability required for continuing professional development.</td>
<td>n/a</td>
<td>1,2,3,4</td>
<td>8.2, 8.3.</td>
<td>PID711 PID712 PID721 PID722 DIS732</td>
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</tbody>
</table>

#### 13.2. Assessment against Modules Mapping

<table>
<thead>
<tr>
<th>Module</th>
<th>Learning outcomes</th>
<th>Method of assessment</th>
</tr>
</thead>
</table>
| PID711 | 1. Demonstrate a deep and systematic understanding of the key concepts and evidence-base relating to the diagnosis of and treatment planning of patients undergoing treatment for periodontal disease. 2. Critically analyse and evaluate the available evidence that supports a range of restorative techniques and related clinical fields, applying it where appropriate and recognising where alternative approaches are required. 3. Apply critical reflection and synthesis of knowledge gained through the course learning outcomes and previous clinical experience to safely and proficiently demonstrate effective | **1. Clinical case report and literature review**  
*Formative assessment* provided by feedback/discussion with tutors. Critical appraisal exercises.  
*Summative assessment* approximately 4,000-5,000 words.  
**2. Successful participation in simulated technique course**  
*Formative assessment* provided by feedback/discussion during mini-CEX’s |
### PID712

1. Develop a deep and systematic understanding of the key concepts and evidence-base relating to the diagnosis of and treatment planning of patients undergoing treatment for periodontal disease where there are orthodontic, prosthodontic and endodontic considerations or where dental implants are planned.

2. Develop a deep and systematic understanding of the key concepts and evidence-base relating to the diagnosis of and treatment planning of patients undergoing treatment for periodontal disease where there are systemic health considerations.

3. Critically analyse and evaluate the available evidence that supports a range of techniques for the treatment of periodontal disease in patients undergoing treatment for periodontal disease where there are orthodontic, prosthodontic, endodontic or systemic health considerations, or where dental implants are planned, applying it where appropriate and recognising where alternative approaches are required.

4. 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 for the management of periodontal disease.

#### Summative assessment on satisfactory completion of exercise

- **3. Case Presentation and Oral examination**

  *Formative assessment provided by feedback/discussion with tutors.*

  *Summative assessment Poster and 20 minute presentation/examination*

- **1. Clinical case report and literature review**

  *Formative assessment provided by feedback/discussion with tutors.*

  *Summative assessment approximately 4,000-5,000 words.*

- **2. Successful participation in simulated technique course**

  *Formative assessment provided by feedback/discussion during mini-CEX’s*

  *Summative assessment on satisfactory completion of exercise*

- **3. Case presentation and oral examination**

  *Formative assessment provided by feedback/discussion with tutors.*

  *Summative assessment Poster and 20 minute presentation/examination*
| PID721 | 1. Demonstrate a deep and systematic understanding of the key concepts and evidence-base relating to periodontal surgery, including indications for surgery, techniques and follow-up care. |
|        | 2. Critically analyse and evaluate the available evidence that supports the use of surgery, when appropriate, and recognising where alternative approaches may be 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 surgical treatment techniques for the management of periodontal disease and its sequela, and crown lengthening surgery. |
|        | 4. To Demonstrate critical analysis and synthesis of evidence for the application of surgical periodontal techniques; combined with critical reflection and analysis on the validity and appropriateness of treatment and management decisions made. |

| 4. Work-based Assessments; Case-based discussions |
| Summative assessment on satisfactory participation and contribution to exercises |

| 1. Clinical case report and literature review |
| Formative assessment provided by feedback/discussion with tutors. |
| Summative assessment approximately 4,000-5,000 words. |

| 2. Case presentation and oral examination |
| Formative assessment provided by feedback/discussion with tutors. |
| Summative assessment Poster and 20 minute presentation/examination |

| 3. Workplace-based assessment; Simulated clinical exercises |
| Formative assessment provided by feedback/discussion during mini-CEX’s |
| Summative assessment on satisfactory completion of |
### PID722

1. Demonstrate a deep and systematic understanding of the key concepts and evidence-base relating to the provision of implant-borne restorations, including assessment of the patient, planning, surgical techniques, including soft and hard tissue grafting, and follow-up care.

2. Critically analyse and evaluate the available evidence that supports the use of implant-borne prostheses and, when appropriate, recognising where alternative approaches may be 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 provision of dental implants.

4. To demonstrate critical analysis and synthesis of evidence for the provision of implant-borne prostheses; combined with critical reflection and analysis on the validity and appropriateness of treatment and management decisions made.

### DIS732

1. Systematically and critically review relevant theory and methodology in the design and development of an independent project.

2. Provide evidence of skills in project design, development and evaluation, including question formulation;

### Exercise

1. **Clinical case report and literature review**
   - *Formative assessment* provided by feedback/discussion with tutors.
   - *Summative assessment* approximately 4,000-5,000 words.

2. **Case presentation and oral examination**
   - *Formative assessment* provided by feedback/discussion with tutors.
   - *Summative assessment* Poster and 20 minute presentation/examination

3. **Workplace-based assessment**;
   - **Simulated clinical exercises**
     - *Formative assessment* provided by feedback/discussion during mini-CEX's
     - *Summative assessment on satisfactory completion of exercise*

1. **Project Report**
   - *Formative assessment* Feedback and discussion with tutors, discussion with supervisor(s);
   - *Summative assessment*
13.3. Skills against Modules Mapping

The skills associated with the Level 7 (Master's) SEEC guidance map against the modules as follows:

<table>
<thead>
<tr>
<th>SEEC descriptor</th>
<th>Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive and Intellectual Skills</td>
<td>Analysis: with critical awareness can undertake analysis of complex, incomplete or contradictory areas of knowledge communicating the outcome effectively.</td>
</tr>
</tbody>
</table>

- SEEC descriptor
- Modules
- Project report (12-18,000 words)
| **Synthesis:** with critical awareness, can synthesise information in a manner that may be innovative, utilising knowledge or processes from the forefront of the discipline/practice. | PID711  
PID712  
PID721  
PID722  
DIS732 |
|------------------|------------------|
| **Evaluation:** has a level of conceptual understanding that will allow her/him critically to evaluate research, advanced scholarship and methodologies and argue alternative approaches. | PID711  
PID712  
PID721  
PID722  
DIS732 |
| **Application:** can demonstrate initiative and originality in problem solving. Can act autonomously in planning and implementing tasks at a professional or equivalent level, making decisions in complex and unpredictable situations. | PID711  
PID712  
PID721  
PID722  
DIS732 |

**Key/transferrable skills**

| **Group working:** can work effectively with a group as leader or member. Can clarify tasks and make appropriate use of the capacities of group members. Is able to negotiate and handle conflict with confidence. | PID711  
PID712  
PID721  
PID722  
DIS732 |
|------------------|------------------|
| **Learning resources:** is able to use full range of learning resources. | PID711  
PID712  
PID721  
PID722  
DIS732 |
| **Self evaluation:** is reflective on own and others functioning in order to improve practice. | PID711  
PID712  
PID721  
PID722  
DIS732 |
| **Management of information:** | PID712  
|                                 | PID721  
| can competently undertake      | PID722  
| research tasks with minimum    | DIS732  
| guidance.                      |        |

**Autonomy:** is an independent and self critical learner, guiding the learning of others and managing own requirements for continuing professional development.

**Communications:** can engage confidently in academic and professional communication with others, reporting on action clearly, autonomously and competently

**Problem solving:** has independent learning ability required for continuing professional study, making professional use of others where appropriate

| **Practical skills** | PID711  
|                     | PID712  
|                     | PID721  
|                     | PID722  

**Application of skills:** can operate in complex and unpredictable and/or specialised contexts, and has an overview of the issues governing good practice.

**Autonomy in skill use:** is able to exercise initiative and personal responsibility in professional practice.

**Technical expertise:** has technical expertise, performs smoothly with precision and effectiveness; can adapt skills and design or develop new
| skills and/or procedures for new situations. |   |

Complexity assessment: Levels of periodontal care

LEVEL 1 ASSESSMENT
Comprehensive interpretation of medical, social, behavioural factors relevant to periodontal health

Work to be carried out by GDP
Work to be carried out by GDP with additional competencies
Work to be referred to Level 3 specialist - Leads & managed clinical network
13.5. Appendix B. extracts from “Minimum Training Standards in Implant Training”.

TRAINING STANDARDS IN IMPLANT DENTISTRY

THE STANDARDS

The scope of Implant Dentistry

Implant dentistry encompasses a variety of surgical and restorative dental techniques and procedures, but it can broadly be divided into two levels:

1. Replacement of missing dentition involving the straightforward placement and/or restoration of implants.

2. Replacement of missing dentition involving the complex placement and/or restoration of implants

The Appendix provides guidance about 'Straightforward' and 'Complex' cases.

Replacement of dentition involving the straightforward placement and/or restoration of implants

Before undertaking implant treatment, a dentist must develop competence in the procedures involved in clinical assessment, treatment planning, and the placement and restoration of implants. The skills and knowledge necessary for competence should be developed through a training course in implant dentistry, with a suitably trained and experienced clinician acting as a mentor. Treatment offered and undertaken must be evidence-informed and patient-centred. The dentist must use a contemporary decision-making process to critically appraise new products and techniques before using them, and must ensure they follow current clinical consensus.

A dentist undertaking implant treatment should have the necessary skills to:

1. clinically assess a patient's suitability for implant therapy and undertake a risk-benefit analysis, including the identification of any physical or medical conditions the patient has that could make them unsuitable for implant treatment or could complicate surgery

2. communicate well with the patient, to ensure s/he:
   - is fully informed about other treatment options, and their relative indications and contra-indications,
   - is fully informed about the advantages and disadvantages of using implant anchorage in restoring the appearance and function of their dentition
   - gives consent prior to implant placement that is informed and valid

3. undertake appropriate imaging of the mandible and the maxilla, and interpret the findings to inform treatment

4. use aseptic surgical techniques

5. harvest hard and soft tissues from oral sites for localised alveolar augmentation

6. raise mucoperiosteal flaps and suture

Page 3 of 8
7. use exogenous bone or bone substitutes for minor alveolar bone augmentation in the placement of implants
8. use appropriate pharmaceutical agents
9. undertake conventional restorative procedures
10. undertake straightforward implant-supported restorative procedures
11. diagnose and deal with complications occurring during or after treatment
12. monitor and maintain implants over time, including the repair and replacement of any implant or prostheses
13. document and audit all clinical activity.

The dentist must first have a good level of general dental knowledge (equivalent to that needed to pass the RCS Dental Faculties’ membership examinations), augmented by an in-depth underpinning knowledge for the above skills and processes, specifically:

1. surgical anatomy of the maxilla, the mandible and the surrounding tissues
2. pathological processes that occur in the maxilla, the mandible and the surrounding tissues
3. physical or medical conditions that could make a patient unsuitable for implant treatment or could complicate surgery
4. the implant and other treatment options available and their relative indications and contraindications for certain patient groups
5. the various advantages and disadvantages of using implant anchorage in restoring the appearance and function of the dentition, including the technical, functional and cosmetic limitations
6. the principles and process of obtaining valid patient consent prior to implant treatment
7. implant design, geometry and characteristics
8. the sourcing of suitable materials
9. the effective control of infection and principles of aseptic technique
10. appropriate pharmaceutical agents that might be needed
11. the healing processes that normally occur following surgery
12. how to identify and deal with peri-operative and longer term complications
13. clinical and laboratory techniques used to restore implants, including an understanding of the laboratory stages and techniques used to construct implant supported restorations.
14. the principles and practice of appropriate record keeping, including the need to document and audit all clinical activity.
Appendix

Guidance for ‘Straightforward’ and ‘Complex’ Cases

Few treatment episodes will fall exactly into either category, but the definitions here should help to identify the degree of complexity and potential risks involved in individual cases. Dental practitioners can then better match cases to their level of experience and skills, at the same time as determining their professional development and training requirements.

Perception of Case

Straightforward: You can easily visualise the end result and the treatment stages are predictable. There are no aesthetic risk factors.

Complex: The end result cannot be easily visualised without extensive diagnostic and planning techniques. Treatment will include multiple stages to achieve the desired outcome and may involve multidisciplinary planning. Complications are more likely to occur than with straightforward cases. The aesthetic requirements or limitations of the case are high, as are the expectations of the patient.

Age and Medical History

Straightforward: The patient is fit to undergo routine oral surgical and restorative treatment procedures. There are no medical risk factors.

Complex: Due to age or physical/medical compromise, the patient will require special care and management. Consideration will need to be given to the duration of the required procedures and the complexity of any remedial action that may be required should complications occur.

Tooth Position

Straightforward: The teeth to be replaced conform to the existing arch form, and the adjacent and opposing teeth easily determine the optimal prosthetic tooth position. There are no aesthetic risk factors.

Complex: There are no adjacent teeth, or those present are in an unsuitable position. There is a need to carry out extensive diagnostic procedures to determine the optimal tooth/implant position for aesthetics and function.

Implant Surgery

Straightforward: The implant surgery procedure is without anatomically related risks and can be carried out without the need for significant hard tissue grafting (this includes onlay bone grafting and sinus grafting).
TRAINING STANDARDS IN IMPLANT DENTISTRY 2012

Complex: The implant surgery is a more difficult procedure, which has anatomically related risks and might require significant hard tissue grafting (this includes onlay bone grafting and sinus grafting). Surgery will involve significant alteration to anatomical structures with potential risk of damage to vital structures.

Soft Tissue

Straightforward: Minor augmentation or alteration of the position of the peri-implant mucosa is all that is required. Such intervention would not require significant grafting of hard/soft tissue. Soft tissues biotype (quality and quantity) is satisfactory.

Complex: There is a need to significantly augment or alter the position of the peri-implant mucosa, requiring significant amounts of hard/soft tissue to be grafted.

Occlusion

Straightforward: The teeth can be replaced conforming to the existing occlusal scheme and at the same vertical dimension

Complex: There is a need to substantially change the existing occlusal scheme or the occlusal vertical dimension.

Periodontal Status

Straightforward: The patient has healthy periodontal status or requires only straightforward mechanical periodontal intervention to eliminate minor pocketing or bleeding and improvement in plaque control.

Complex: The patient has active periodontitis with advanced horizontal/vertical bone loss and tooth mobility. There are lifestyle issues or co-morbidities such as smoking, diabetes or bruxism.

Loading Protocols

Straightforward: Implants are loaded after a conventional period of 8 to 12 weeks.

Complex: Implants are loaded/temporarised immediately or soon after their placement (early loading).

Maintenance

Straightforward: Dental hygienist or clinician provides oral hygiene advice and manages implant mucositis or periimplantitis with non-surgical periodontal therapy

Complex: Surgical management of periimplantitis or implants that require removal by surgical approach.
8.1. Appendix C. Mapping against “Minimum Training Standards in Implant Training”.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Module</th>
<th>Teaching methods</th>
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</thead>
<tbody>
<tr>
<td>SKILLS</td>
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<tr>
<td></td>
<td>Communicate well with the patient, to ensure s/he is fully informed about other treatment options, and their relative indications and contra-indications, PID712</td>
<td>Lecture/small group teaching</td>
</tr>
<tr>
<td></td>
<td>Communicate well with the patient, to ensure s/he is fully informed about the advantages and disadvantages of using implant anchorage in restoring the appearance and function of their dentition PID712</td>
<td>Lecture/small group teaching</td>
</tr>
<tr>
<td></td>
<td>Communicate well with the patient, to ensure s/he gives consent prior to implant placement that is informed and valid PID712</td>
<td>Lecture/small group teaching</td>
</tr>
<tr>
<td></td>
<td>Undertake appropriate imaging of the mandible and the maxilla, and interpret the findings to inform treatment PID722</td>
<td>Lecture/small group teaching</td>
</tr>
<tr>
<td></td>
<td>Use aseptic surgical techniques PID721, PID722</td>
<td>Lecture/small group teaching Simulated hands on training</td>
</tr>
<tr>
<td></td>
<td>Harvest hard and soft tissues from oral sites for localised alveolar PID722</td>
<td>Lecture/small group teaching Simulated hands on training</td>
</tr>
<tr>
<td><strong>Surgical anatomy of the maxilla, the mandible and the surrounding tissues</strong></td>
<td>PID711, PID722</td>
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<td>------------------------------------------------</td>
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<tr>
<td><strong>Pathological processes that occur in</strong></td>
<td>PID711, PID722</td>
<td></td>
</tr>
<tr>
<td><strong>Diagnose and deal with complications occurring during or after treatment</strong></td>
<td>PID722</td>
<td></td>
</tr>
<tr>
<td><strong>Undertake straightforward implant-supported restorative procedures</strong></td>
<td>PID722</td>
<td></td>
</tr>
<tr>
<td><strong>Undertake conventional restorative procedures</strong></td>
<td>PID722</td>
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<td><strong>Use appropriate pharmaceutical agents</strong></td>
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<td><strong>Use exogenous bone or bone substitutes for minor alveolar bone augmentation in the placement of implants</strong></td>
<td>PID721, PID722</td>
<td></td>
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<tr>
<td><strong>Raise mucoperiosteal flaps and suture</strong></td>
<td>PID721, PID722</td>
<td></td>
</tr>
<tr>
<td><strong>Monitor and maintain implants over time, including the repair and replacement of any implant or prostheses</strong></td>
<td>PID711, PID712, PID722</td>
<td></td>
</tr>
<tr>
<td><strong>Document and audit all clinical activity</strong></td>
<td>PID712</td>
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</table>

**KNOWLEDGE**

- Lecture/small group teaching
- Simulated hands on training
<table>
<thead>
<tr>
<th>Topic</th>
<th>PID</th>
<th>Lecture Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>the maxilla, the mandible and the surrounding tissues</td>
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<td>Physical or medical conditions that could make a patient unsuitable for implant treatment or could complicate surgery</td>
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<tr>
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<td>Lecture/small group teaching</td>
</tr>
<tr>
<td>The various advantages and disadvantages of using implant anchorage in restoring the appearance and function of the dentition, including the technical, functional and cosmetic limitations</td>
<td>PID722</td>
<td>Lecture/small group teaching</td>
</tr>
<tr>
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<td>Lecture/small group teaching</td>
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<td>Implant design,</td>
<td>PID722</td>
<td>Lecture/small group teaching</td>
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<td>Topic</td>
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<td>Module Numbers</td>
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<tr>
<td>geometry and characteristics</td>
<td>lecture/small group teaching</td>
<td>PID721, PID722</td>
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<td>How to identify and deal with peri-operative and longer term complications</td>
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<td>lecture/small group teaching</td>
<td>PID712</td>
</tr>
</tbody>
</table>
Notes for students: -

n.b. “Lecture/small group teaching” refers to “traditional” teaching methods; You will be given pre-reading before the session, participate in the session, and follow up or “consolidation” activities. The aim of these sessions is to provide you with the knowledge which underpins the domain described in the Standards; you will then receive support, should you require it, to apply it to your own practice through the various Consultant support days and case-based discussions.

“hands on” sessions are ALL conducted in a simulated environment, rather than on “real” patients.