Masters in Clinical Dentistry
(Orthodontics & Dentofacial Orthopaedics)

Programme Handbook
August 2015
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FOREWORD

Welcome by the Dean

I am delighted you have chosen to study your degree at BPP University, the UK’s only dedicated independent university for the professions and Europe’s largest university of professional education.

As a new student to BPP University’s School of Health you will have the opportunity for new experiences whilst developing skills to give you the best chance of succeeding in your chosen postgraduate career.

We are very pleased to be collaborating with our partner, the City of London Dental School, in delivering this Masters programme to provide you with an excellent mix of academic and clinical experiences which will enable you to develop your career into your chosen specialist area of dental practice.

My faculty staff will work with you at every step to help you realise your full potential and I will make sure that your academic studies are supported by our excellent lecturers, all of whom have real-world practitioner experience. The practical focus of your lectures and seminars will make the difference in helping you to acquire the necessary skills to enhance your clinical practice.

I look forward to meeting you and wish you the very best of luck with your studies.

Yours sincerely,

Professor Christina Cunliffe DC PhD CBiol FRCC FIBiol
Dean of BPP School of Health
BPP University
WELCOME

Welcome from the Director of Programmes

I am delighted that you have chosen to study for your Masters in Clinical Dentistry at BPP University School of Health, in collaboration with the City of London Dental School – we hope you will enjoy your time with us. The purpose of this handbook is to help you find your way around the School, its staff and its procedures.

This programme has been designed with great care and based on many years’ experience to provide you with essential knowledge and skills to equip you for your postgraduate career.

You will find that BPP University is a busy place and enjoys an excellent and eclectic mix of students. As a result you will meet people from different backgrounds and cultures and we hope that you will enjoy and benefit from the opportunity of this diversity.

We welcome feedback, both good and bad, to help us continually improve our programmes and we look forward to interacting with you to deliver high quality education that meets your clinical practice needs. In this handbook you will find my contact details and those of many other people that are here to help you!

We wish you a very happy period of study and look forward to working with you.

Dr. Maher Almasri
Director of Programmes
Masters in Clinical Dentistry
### SECTION 1: INTRODUCTION TO THE PROGRAMME

<table>
<thead>
<tr>
<th>Programme Title</th>
<th>Masters in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification</td>
<td>MClinDent (Orthodontics and Dentofacial Orthopaedics)</td>
</tr>
<tr>
<td>Awarding Body</td>
<td>BPP University</td>
</tr>
</tbody>
</table>

**Overview of Programme**

This Masters programme is unique in that it is the only externally validated Masters level programme delivered by a private university in collaboration with an independent Dental School. It also incorporates the recent use of fillers and botulinum toxin in orthodontic treatments such as in gummy smile, TMD and deep bite cases. The programme delivers advanced clinical training and builds upon existing clinical skills acquired at undergraduate level. During the programme you will:

- Acquire advanced knowledge and clinical skills of all aspects of orthodontics and dentofacial orthopaedics and related aspects of other dental fields such as prosthodontics, paedodontics, periodontics, endodontics, occlusion, implantology and cosmetic dentistry.
- Learn how to treat patients with simple to severe and complex malocclusions.
- Evaluate and apply the latest technological advances in orthodontics and dentofacial orthopaedics in addition to TADs and anchorage control.
- Smile design and make over from the orthodontic point of view.
- Obtain a working knowledge of scientific methodology.
- Have a foundation for evidence based orthodontics and dentofacial orthopaedics.

Additionally, the programme aims to promote an understanding of the different requirements essential to the provision of ethical, predictable, and evidence-based orthodontics.

**Programme Aims**

The overall aim is to deliver sound teaching in the theory and safe practice of modern dentistry and orthodontics. It aims to produce competent and reflective practitioners as well as encouraging opportunities for research and further postgraduate development. The programme aims are:

- To provide un-biased teaching in the theory and practice of orthodontics
- To give opportunities for personal and professional development
- To contribute to the research base of orthodontics and to encourage research amongst practitioners
- To promote orthodontic treatments as a safe and practical method of treating children and adults with various degrees of malocclusion
- To provide safe, competent, and reflective practitioners in this field
- To appraise levels of competency
Programme Objectives

By the end of the programme, successful students will have acquired the experience and specialist knowledge to confidently:

- Deliver safe, predictable, and competent orthodontic and functional treatments.
- Understand their role and responsibilities in the provision of malocclusion treatment to their patients, together with their relationships to other colleagues and the dental care team.
- Be able to communicate effectively with other professionals in the management of complex cases requiring interdisciplinary or multidisciplinary approaches.
- Interpret research findings and their implications in orthodontics and dentofacial orthopaedics.
- Be able to evaluate various treatment options, demonstrate proficiency in applying contemporary orthodontic techniques and reflect on all aspects relating to practice management, synthesising information gained from a wide variety of sources in order to develop an optimal and realistic treatment plan.
- Understand the major legal, ethical, & social implications of orthodontic treatment.

Programme Structure

The programme is multi-modular, all of which have to be completed to progress through the programme. At the end of the third year, students will be awarded a MClinDent (Orthodontics and Dentofacial Orthopaedics).

The training workshops are taught by leading professionals in the field of orthodontics. Tutors and recognised experts will give lectures, demonstrations, and surgical support. These include distinguished academics, specialists, consultants, university lecturers, and researchers.

Modular Masters Programme

The programme is taught over three years part time and leads to the award of an MClinDent (Orthodontics and Dentofacial Orthopaedics). Modules are run three times during the academic year, after which each student must complete all assignments related to the module topic. Students are required to attend three taught modules in the first year and three further modules in the second year.

In the third year, taught modules will be followed by tutorials with their personal project supervisor. Tutors will work on an individual basis with students, helping and guiding them through their thesis. During this period, students start their dissertations applying the literature, research skills, and knowledge previously acquired to an area of interest relevant to their chosen specialty.

Programme Progression

Each student must have satisfied the criteria of assessment and achieved the appropriate number of credits for that year before being allowed to progress to the following year. Students progress through the programme as shown below and there are no optional modules for this programme.
<table>
<thead>
<tr>
<th>Module</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Growth and Development</td>
<td></td>
<td></td>
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<tr>
<td>Principles of Orthodontic Diagnosis and Treatment Planning</td>
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<tr>
<td>Principles of Orthodontic Treatment Protocols</td>
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<tr>
<td>Fundamentals of Orthodontic Treatment of Skeletal Problems in Preadolescence and Adolescence</td>
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</tr>
<tr>
<td>Fundamentals of Orthodontic Treatment of Non-skeletal Problems in Preadolescence and Adolescence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Adult Orthodontics and Orthognathic Cases</td>
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<tr>
<td>Advanced Clinical Practice</td>
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<td></td>
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<tr>
<td>Evidence Based Dentistry: Understanding Research</td>
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<td></td>
<td></td>
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<tr>
<td>Evidence Based Dentistry: Professional Project</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Year of Study</td>
<td>Module</td>
<td>Description</td>
<td></td>
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<tr>
<td>-------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>First Year</strong></td>
<td><strong>PRINCIPLES</strong></td>
<td>During the first year students will identify suitable cases for treatment from within their own patient base. This will generate the cases required for the Advanced Clinical Practice Module delivered in the second year.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Principles of Growth and Development (20 Credits)</td>
<td>This module explains in depth the principles of embryology, growth and development in relation to the aetiology of the orthodontic problem and relates these to the outcome of orthodontic treatment. It also discusses the ability to modify growth and increase the predictability and long-term stability of orthodontic movements.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Principles of Orthodontic Diagnosis and Treatment Planning (20 Credits)</td>
<td>This module focuses on the diagnostic strategies and principles necessary to formulate optimal orthodontic treatment planning and predictability of treatment outcome using current state of knowledge in all aspects of orthodontic analyses and modern diagnostic tools.</td>
<td></td>
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<tr>
<td></td>
<td>Principles of Orthodontic Treatment Protocols (20 Credits)</td>
<td>This module will explain in depth the biomechanics and biological bases of controlled orthodontic tooth movements. It also includes practical details of the basic principles of constructing and placing orthodontic appliances and using them safely on suitable patients. This will involve practical laboratory skills sessions on typodonts.</td>
<td></td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td><strong>ADVANCED PRACTICE</strong></td>
<td>This year comprises four core modules that culminate in the clinical assessment of professional competency.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundamentals of Orthodontic Treatment of Skeletal Problems in Preadolescence and Adolescence (10 Credits)</td>
<td>This module will equip the student with the most up-to-date knowledge and techniques available to modify growth and to treat successfully the vast majority of problems using solely orthodontics therapies or with the intervention of orthognathic surgery.</td>
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</tr>
<tr>
<td></td>
<td>Fundamentals of Orthodontic Treatment of Non-skeletal Problems in Preadolescence and Adolescence (10 Credits)</td>
<td>In this module, students will learn about non-skeletal orthodontic problems in children and will be taught the most up-to-date techniques to solve these problems.</td>
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</tr>
<tr>
<td></td>
<td>Fundamentals of Adult Orthodontics and Orthognathic Cases (10 Credits)</td>
<td>This module addresses clinical aspects of occlusal treatment in adults and their complex dentition and psychological needs. Diagnosis and treatment protocols specific to this patient group will be explored in detail. Of fundamental importance is occlusion and approaches to the treatment of temporomandibular disorders, occlusal adjustment, and treatment of severe malocclusions. Students will undertake a review of the literature of clinical trials in orthodontics and dentofacial orthopaedics.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced Clinical Practice (30 Credits)</td>
<td>Students present and treat a minimum of ten orthodontic cases, four of which are supervised and appraised. Students attend case presentation days and present models and records of actual cases they intend to treat from within their own practice base. These cases build up a portfolio of evidence to be submitted and reviewed online.</td>
<td></td>
</tr>
<tr>
<td>Year of Study</td>
<td>Module</td>
<td>Description</td>
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<tr>
<td>Third Year</td>
<td>Evidence Based Dentistry: Understanding Research (20 Credits)</td>
<td>Introduces statistics, measurement, research design, and argument exploring their specific application in dental and orthodontic research and evaluation of different treatment modalities.</td>
<td></td>
</tr>
<tr>
<td>EVIDENCE BASED</td>
<td>Evidence Based Dentistry: Professional Project (40 Credits)</td>
<td>Students will be able to develop a research question and produce a research dissertation on an area relevant to their practice.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MClinDent (Orthodontics and Dentofacial Orthopaedics) (180 Credits)</td>
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</table>
### Programme Total Workload

<table>
<thead>
<tr>
<th>Year 1 Modules</th>
<th>Level</th>
<th>Credit</th>
<th>CT</th>
<th>DLT</th>
<th>Total DLT</th>
<th>ILT</th>
<th>Total Workload</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Growth and Development</td>
<td>7</td>
<td>20</td>
<td>35</td>
<td>145</td>
<td>180</td>
<td>20</td>
<td>200</td>
</tr>
<tr>
<td>Principles of Orthodontic Diagnosis and Treatment Planning</td>
<td>7</td>
<td>20</td>
<td>35</td>
<td>145</td>
<td>180</td>
<td>20</td>
<td>200</td>
</tr>
<tr>
<td>Principles of Orthodontic Treatment Protocols</td>
<td>7</td>
<td>20</td>
<td>35</td>
<td>145</td>
<td>180</td>
<td>20</td>
<td>200</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>600</td>
</tr>
</tbody>
</table>

NB: Full-time students will, in addition, complete 32 weeks in practice placement for 24 hours each week, split 50:50 between theory and practice.

<table>
<thead>
<tr>
<th>Year 2 Modules</th>
<th>Level</th>
<th>Credit</th>
<th>CT</th>
<th>DLT</th>
<th>Total DLT</th>
<th>ILT</th>
<th>Total Workload</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Orthodontic Treatment of Skeletal Problems in Preadolescence and Adolescence</td>
<td>7</td>
<td>10</td>
<td>21</td>
<td>64</td>
<td>85</td>
<td>15</td>
<td>100</td>
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<tr>
<td>Fundamentals of Orthodontic Treatment of Non-skeletal Problems in Preadolescence and Adolescence</td>
<td>7</td>
<td>10</td>
<td>21</td>
<td>64</td>
<td>85</td>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td>Fundamentals of Adult Orthodontics and Orthognathic Cases</td>
<td>7</td>
<td>10</td>
<td>21</td>
<td>64</td>
<td>85</td>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td>Advanced Clinical Practice</td>
<td>7</td>
<td>30</td>
<td>27</td>
<td>223</td>
<td>250</td>
<td>50</td>
<td>300</td>
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<td>Totals</td>
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<td></td>
<td></td>
<td></td>
<td>600</td>
</tr>
</tbody>
</table>

NB: Full-time students will, in addition, complete 32 weeks in practice placement for 24 hours each week, split 50:50 between theory and practice.

<table>
<thead>
<tr>
<th>Year 3 Modules</th>
<th>Level</th>
<th>Credit</th>
<th>CT</th>
<th>DLT</th>
<th>Total DLT</th>
<th>ILT</th>
<th>Total Workload</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence Based Dentistry: Understanding Research</td>
<td>7</td>
<td>20</td>
<td>20</td>
<td>80</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Evidence Based Dentistry: Professional Project</td>
<td>7</td>
<td>40</td>
<td>20</td>
<td>180</td>
<td>200</td>
<td>200</td>
<td>400</td>
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<tr>
<td>Totals</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>600</td>
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</tbody>
</table>

NB: Full time students will, in addition, attend weekly research tutorials.

### Grand Total

<table>
<thead>
<tr>
<th>Credit</th>
<th>CT</th>
<th>DLT</th>
<th>Total DLT</th>
<th>ILT</th>
<th>Total Workload</th>
</tr>
</thead>
<tbody>
<tr>
<td>180</td>
<td>235</td>
<td>1110</td>
<td>1345</td>
<td>455</td>
<td>1800</td>
</tr>
</tbody>
</table>

CT = contact time  
DLT = directed learning  
ILT = independent learning
Methods of Assessment

Students are assessed by a variety of means appropriate to the programme module. These may include written assignments, projects, oral presentation, and practical/clinical assessment. The aim is to build students' knowledge and confidence so that they may progress through the programme and be ready for final assessment. The demands are both academic and practical and frequently involve the students in considered reflection upon their own experience and development. All modules are summatively assessed and constitute an essential part of the programme.

Students are kept fully informed of their progress. Special regulations apply to students who fail summative examinations and costs will be incurred for retakes.

Assessment methods are constantly being evaluated and the examining and academic boards review the current methods on a regular basis.

<table>
<thead>
<tr>
<th>Year</th>
<th>Module</th>
<th>Level</th>
<th>Credit</th>
<th>Assessment Method</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Principles of Growth and Development</td>
<td>7</td>
<td>20</td>
<td>Assignment – 2,000 words 15 minute presentation</td>
<td>80% 20%</td>
</tr>
<tr>
<td>1</td>
<td>Principles of Orthodontic Diagnosis and Treatment Planning</td>
<td>7</td>
<td>20</td>
<td>Assignment – 2,000 words 15 minute presentation</td>
<td>80% 20%</td>
</tr>
<tr>
<td>1</td>
<td>Principles of Orthodontic Treatment Protocols</td>
<td>7</td>
<td>20</td>
<td>Assignment – 2,000 words 15 minute presentation</td>
<td>80% 20%</td>
</tr>
<tr>
<td>2</td>
<td>Fundamentals of Orthodontic Treatment of Skeletal Problems in Preadolescence and Adolescence</td>
<td>7</td>
<td>10</td>
<td>Assignment – 1,500 words</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Fundamentals of Orthodontic Treatment of Non-skeletal Problems in Preadolescence and Adolescence</td>
<td>7</td>
<td>10</td>
<td>Assignment – 1,500 words</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Fundamentals of Adult Orthodontics and Orthognathic Cases</td>
<td>7</td>
<td>10</td>
<td>Assignment – 1,500 words</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Advanced Clinical Practice</td>
<td>7</td>
<td>30</td>
<td>Portfolio of 4 case diaries – 1,500 words each Clinical Examination</td>
<td>100% P/F</td>
</tr>
<tr>
<td>3</td>
<td>Evidence Based Dentistry: Understanding Research</td>
<td>7</td>
<td>20</td>
<td>Assignment – 1,500 words Research Proposal – 1,500 words</td>
<td>40%  60%</td>
</tr>
<tr>
<td>3</td>
<td>Evidence Based Dentistry: Professional Project</td>
<td>7</td>
<td>40</td>
<td>Protocol – 3,000 words Dissertation – max 15,000 words</td>
<td>30%  70%</td>
</tr>
</tbody>
</table>
## Programme Outcomes

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>K</th>
<th>C</th>
<th>P</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate critical understanding of the principles, theory and safe practice of the speciality</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Demonstrate proficiency in history taking and clinical examination and understanding of surgical disorders in the context of basic sciences and mechanism of disease</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficiently evaluate, identify and select suitable clinical cases</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Integrate complex knowledge to promote and advise prospective clinical patients</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Demonstrate critical skills in diagnosing and planning the treatment for clinical cases</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Critically identify and evaluate the choice of techniques to enhance treatment options</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Evaluate complex legal and ethical principles underlying patient care</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Demonstrate proficiency in the use of relevant equipment</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate proficiency in performing safe basic surgical techniques that are common in practice</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Demonstrate advanced and proficient skills in the practise of the speciality</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Exercise appropriate judgement in planning, selecting or presenting information, methods or resources and systematically apply knowledge in an original manner to formulate new ideas or conclusions</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Complete a research dissertation that is justified by a critical awareness of current problems in the field, and shows insight and originality in the application of methods, in the presentation of results and in the critical discussion of results pertaining to their research question</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**KEY**  
K = Knowledge  
C = Cognitive Skills  
P = Professional Skills  
T = Transferrable Skills
Section 2
Module Outlines

Year 1 Modules
**Educational Aims**

To introduce students to:

- embryology, growth and development in general
- principles of growth and development in the craniofacial region
- factors affecting occlusion and malocclusion

**Learning Outcomes**

<table>
<thead>
<tr>
<th>LO1</th>
<th>comprehensively understand the principles, theory and stages of growth, occlusion, malocclusion and clinically evaluate their management</th>
<th>K1 C1</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO2</td>
<td>evaluate the nature of skeletal growth and types of growth in the craniofacial complex.</td>
<td>K2 C2</td>
</tr>
</tbody>
</table>

**Assessments**

**Summative**
A written assignment of 2,000 words (80%) (LO1 - LO4)
Presentation on aspects of clinical practice (20%) (LO1 - LO4)

**Formative**
Cephalometry practical
### Indicative Syllabus

1. **Growth and Development in Orthodontics**

   Principles and fundamentals of embryology, growth and development in general
   Embryology, growth and development of the craniofacial complex
   The nature of skeletal growth
   Types of growth in the craniofacial complex (dimensional and rotational)
   Theories of growth centres
   Resorption and deposition of bone
   Genetic vs environmental factors
   Syndromes of the craniofacial region related to orthodontics and dentofacial orthopaedics
   Dental development and eruption sequences
   Space relations in replacement of primary teeth

2. **Relationship of Growth Abnormalities to Orthodontics**

   Aetiology and development of orthodontic problems and factors that affecting such development
   Agenesis and other complexities
   Diagnoses of orthodontic problems in general
   Principles of preventative orthodontics
   Principles of growth modification in orthodontics
Module Reading

Below is a list of essential and recommended texts to read. These are all available in the library unless they are out of print in which case they will be on order. For those texts that repeatedly appear in the reading lists, it may be useful to buy your own copies so you can annotate the textbooks.

To provide you with a prescriptive list of journal articles would make this section exceptionally long so each lecturer will guide you towards landmark scientific journal articles during and at the end of their lecture.

You should also make use of the references at the end of each of the relevant chapters of the texts below since these texts are a portal to accessing original scientific journal articles.

Please also remember there are other resources such as but not limited to the Cochrane Collaboration, British Orthodontic Society Advice Sheets and Royal College of Surgeon’s Clinical Guidelines.

Essential Reading

JACOBSON A, JACOBSON RL
Radiographic Cephalometry (2006), 2nd ed Quintessence
*A detailed text on practical cephalometry in orthodontics*

MITCHELL L
An Introduction to Orthodontics (2013), 4th ed OUP
*Provides a basic introduction to the subjects in this module*

MOYERS RE
Handbook of Orthodontics (1988), 4th ed Year Book Medical
*A classic review of the basic theories in growth and development (sourcing this text may be challenging as the book has been out of print for some time)*

PROFFIT WR, FIELDS HW, SARVER DM
Contemporary Orthodontics (2012), 5th ed Elsevier
*Provides a comprehensive review to the subjects in this module*

UNIVERSITY OF BRISTOL
Post-graduate Notes in Orthodontics (2012), 6th ed University of Bristol
*A concise but excellent resource full of numerous useful references*

Recommended Reading

COBOURNE MT, DIBIASE AT
Handbook of Orthodontics (2010), 1st ed Elsevier
*An easy to read basic introduction to the subjects in this module*

ENLOW DH, HANS MG
Essentials of Facial Growth (1996), 1st ed Saunders
A classic resource on facial growth

GILL D
An easy to read basic introduction to the subjects in this module

MCDONALD F, IRELAND AJ
Diagnosis of the Orthodontic Patient (1998), 1st ed OUP
Provides a good overview of the diagnostic process

NOAR J
A practical and well illustrated guide in this subject area
Principles of Orthodontic Diagnosis and Treatment Planning

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Educational Aims

To introduce students to:

- orthodontic diagnoses in general
- dentofacial orthopaedic diagnoses in general
- records and case evaluation
- imaging in orthodontics
- diagnosis and prediction of orthodontic problems

Learning Outcomes

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Syllabus Area</th>
<th>Knowledge (K)</th>
<th>Competence (C)</th>
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<tr>
<td>L01</td>
<td>comprehensive knowledge of the basic medical sciences and therapeutics relevant to the diagnosis and treatment planning in orthodontics</td>
<td>K1</td>
<td>C1</td>
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<tr>
<td>L02</td>
<td>critically evaluate the principles of different orthodontic and dentofacial treatments</td>
<td>K2</td>
<td>C2</td>
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<tr>
<td>L03</td>
<td>systematically review and clinically evaluate cephalometric analyses, records and cases</td>
<td>C3</td>
<td>P1</td>
</tr>
<tr>
<td>L04</td>
<td>proficient orthodontic diagnosis and space analyses</td>
<td>C4</td>
<td>P2</td>
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Assessments

Summative
A written assignment of 2,000 words (80%) (LO1 – LO4)
Presentation on aspects of clinical practice (20%) (LO1 – LO4)

Formative
Group work, wire bending and cephalometry practical
Indicative Syllabus

1. Knowledge of the basic medical sciences and therapeutics relevant to the diagnosis and treatment planning in orthodontics

   Dental anatomy
   Bone formation, bone classification quality and quantity, resorption patterns, deposition and turnover and its relevance to orthodontics
   Structure of the dento-alveolar complex and growth centres

   Anatomy
   Topographical anatomy of craniofacial structures
   Vascular and neural supply and its importance with regard to orthodontics
   Surgically assisted orthodontics and orthognathic surgery

   Microbiology
   Organisms responsible for common dental diseases and their behavior
   The orthodontic treatment effects on the pathogenesis and biochemical response

   Therapeutics
   Principles of applied pharmacology in dentistry/orthodontics
   Prescribing and basic principles of drug dosage and misuse of drugs
   Antimicrobial agents: mode of action, toxicity and resistance
   Mediators of pain and inflammation, peripherally and centrally acting analgesics, anti-inflammatory agents
   Side effects of drugs, drug interactions

   Systemic diseases in relation to bone metabolism, orthodontic movement and clinical management
   Management of medically compromised patients
   Infective endocarditis and bacteraemias, including prophylaxis
   Pathological conditions and their impact on orthodontic planning and treatment outcomes
   Therapeutic use of different medications and their implications in orthodontics

2. Orthodontic and dentofacial orthopaedic diagnoses and treatment planning in general terms

   Assessment of the patient; medical/dental and social histories
   Fundamentals of facial, skeletal, dental and soft tissue diagnoses
   Other relevant aspects to orthodontic and dentofacial diagnoses

   Orthodontics
   Basic orthodontic diagnosis and treatment planning and criteria for referral to multidisciplinary specialists

   Dentofacial orthopaedics
   Basic dentofacial diagnosis and treatment planning and criteria for referral to multidisciplinary specialists
General principles
Assessment of restorations, oro-facial structures and of the current dentition and occlusion
The diagnosis and management of periodontal tissues in health and disease, including use of indices

3. Records and case evaluation
Impression techniques and materials for orthodontic records and appliances
Current methods of the orthodontic case evaluation
Occlusal aspects specific to orthodontics
Dental laboratory techniques and materials used in the fabrication and construction of the orthodontic appliances
Monitoring and maintaining standards of our daily practice
Involving technicians in the planning orthodontic appliances and treatment plans

4. Radiology and digital imaging
Radiology
Radiological techniques and procedures
The principles of effective radiology and imaging
Radiological Safety and Regulations (IRMER)
Radiological anatomy of the jaws and teeth especially as it relates to orthodontics and dentofacial orthopaedics
Conventional radiographic systems and views, indications for their use and the interpretation of images with emphasis on diagnosis and orthodontic analysis and planning

Digital Imaging
Basic principles of CT scans and their interpretation and use in orthodontic diagnosis
The use of clinical photography in orthodontics and current software
The formulation of comprehensive and realistic treatment plans
Identification of the need for multidisciplinary procedures
Module Reading

Below is a list of essential and recommended texts to read. These are all available in the library unless they are out of print in which case they will be on order. For those texts that repeatedly appear in the reading lists, it may be useful to buy your own copies so you can annotate the textbooks.

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Essential Reading

CLARK W
Twin Block Functional Therapy (2014), 3rd ed Jaypee Brothers
An updated classic text on functional appliance treatments

FGDP (UK)
Selection Criteria for Dental Radiography (2013), 3rd ed FGDP (UK)
A must-read for all dental practitioners with a section on the developing dentition

ISAACSON KG, THOM AR, HORNAR K & WHAITES E
A useful resource with best practice guidelines for orthodontic radiography

JACOBSON A, JACOBSON RL
Radiographic Cephalometry (2006), 2nd ed Quintessence
A detailed text on practical cephalometry in orthodontics

MITCHELL L
An Introduction to Orthodontics (2013), 4th ed OUP
Provides a basic introduction to the subjects in this module

PROFFIT WR, FIELDS HW, SARVER DM
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Recommended Reading

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Handbook of Orthodontics (2010), 1st ed Elsevier
An easy to read basic introduction to the subjects in this module

GILL D
An easy to read basic introduction to the subjects in this module

KAPILA S
Cone Beam Computed Tomography in Orthodontics (2014), 1st ed Wiley-Blackwell
An up to date comprehensive look at CBCT in orthodontics

SCULLEY C
Medical Problems in Dentistry (2010), 6th ed Churchill Livingstone
A comprehensive look at general medical and surgical conditions as they apply to the practice of dentistry

WHAITES E, DRAGE N
Essentials of Dental Radiography and Radiology (2013), 5th ed Churchill Livingstone
A step-by-step guide on how to capture high quality clinical images
Principles of Orthodontic Treatment Protocols

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### Educational Aims

To introduce students to:

- general protocols specific to fixed orthodontic appliance placement
- general protocols specific to removable and functional orthodontic appliance fabrications
- the biological mechanisms of tooth movement
- decision making in orthodontics

### Learning Outcomes

<table>
<thead>
<tr>
<th>LO</th>
<th>Objective</th>
<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
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<td>LO1</td>
<td>comprehensively understand the protocols for orthodontic appliance fabrication and placement</td>
<td>K1</td>
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<tr>
<td>LO2</td>
<td>comprehensively understand the theory and evaluate the safe practice of orthodontics</td>
<td>K2</td>
<td>C1</td>
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<tr>
<td>LO3</td>
<td>devise and plan clinical orthodontic treatment</td>
<td>C2</td>
<td>P1</td>
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<tr>
<td>LO4</td>
<td>critically evaluate tooth movements and how to control them effectively</td>
<td>K3</td>
<td>C3</td>
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### Assessments

**Summative**
A written assignment of 2,000 words (80%) (LO1 - LO4)
Presentation on aspects of clinical practice (20%) (LO1 - LO4)

**Formative**
Group work and typodont practical
Indicative Syllabus

1. **Orthodontic Appliance Placement Protocols**

   Principles of orthodontic appliance design, stages and placement  
   Materials used in relation to appliance fabrication and placement  
   Preoperative and postoperative guidelines  
   Methods of placing fixed orthodontic appliances on teeth  
   Principles of removable and functional orthodontic appliances  
   Anchorage and ways to enforce it intra- and extra-orally  
   Combining treatment modalities to achieve the best possible results

2. **Biological Mechanisms of Tooth Movement and Biomechanics**

   Biology of orthodontic tooth movement  
   The mechanobiology of the periodontal tissues and the biological aspects of bone growth and metabolism in orthodontics  
   The role of inflammation in defining the type and pattern of tissue response in orthodontics  
   Genetic influences on orthodontic tooth movement  
   Mechanical and biological determination of iatrogenic injuries in orthodontics and the biological backgrounds of orthodontic relapse  
   Biomechanics for safe and effective orthodontic movement and results  
   Mechanical aspects of anchorage control in orthodontics  
   The safe application of complex force systems in orthodontic and dentofacial orthopaedics  
   Skeletal effects of orthodontic forces and mechanics (growth modification)

3. **Principles of Safe Practice of Orthodontics**

   Treatment benefits in orthodontics  
   Iatrogenic effects of orthodontic treatments  
   Allergy in orthodontics and other side effects  
   Preventing common orthodontic injuries  
   Cross infection control during orthodontic appliance fabrication and placement.  
   Orthodontics in relation to other fields of dentistry and medicine

4. **Orthodontic Specific Equipment, Instrumentation and System Types**

   Orthodontic instrumentation necessary for orthodontic appliance therapy  
   Maintenance procedures specific to orthodontic materials and equipment.  
   The safe use and application of orthodontic appliances and components during treatment  
   System types  
   Introduce the different system features and manufacturers of orthodontic appliances together with their various characteristics  
   Clinical records  
   Recording clinical data specific to orthodontics and the progress of the treatment and patient management  
   Maintenance and hygiene and other dental problems associated with orthodontics
Module Reading

Below is a list of essential and recommended texts to read. These are all available in the library unless they are out of print in which case they will be on order. For those texts that repeatedly appear in the reading lists, it may be useful to buy your own copies so you can annotate the textbooks.

To provide you with a prescriptive list of journal articles would make this section exceptionally long so each lecturer will guide you towards landmark scientific journal articles during and at the end of their lecture.

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Please also remember there are other resources such as but not limited to the Cochrane Collaboration, British Orthodontic Society Advice Sheets and Royal College of Surgeon’s Clinical Guidelines.

Essential Reading

BENNETT JC, McLAUGHLIN RP
Orthodontic Management of the Dentition with the Pre-adjusted Appliance (2002), 3rd ed Mosby
*Clear and comprehensive presentation of common clinical situations*

CLARK W
Twin Block Functional Therapy (2014), 3rd ed Jaypee Brothers
*An updated classic text on functional appliance treatments*

LUTHER F, NELSON-MOON Z
*A practical guide on how to design, fit, adjust and maintain retainers and removable appliances*

McLAUGHLIN RP, BENNETT JC, TREVISI H
Systemized Orthodontic Treatment Mechanics (2001), 1st ed Mosby
*A practical guide for the use of the pre-adjusted system*

MITCHELL L
An Introduction to Orthodontics (2013), 4th ed OUP
*Provides a basic introduction to the subjects in this module*

PROFFIT WR, FIELDS HW, SARVER DM
Contemporary Orthodontics (2012), 5th ed Elsevier
*Provides a comprehensive review to the subjects in this module*

UNIVERSITY OF BRISTOL
Post-graduate Notes in Orthodontics (2012), 6th ed University of Bristol
A concise but excellent resource full of numerous useful references

**Recommended Reading**

**COBOURNE MT, DIBIASE AT**  
Handbook of Orthodontics (2010), 1\textsuperscript{st} ed Elsevier  
An easy to read basic introduction to the subjects in this module

**COUSLEY R**  
The Orthodontic Mini-Implant Clinical Handbook (2013), 1\textsuperscript{st} ed Wiley-Blackwell  
Essential theoretical and clinical mini-implant information together with clinical scenarios

**ENGLISH JD, AKYALCIN S, PELTOMAKI T, LITSCHEL K**  
Orthodontic Review (2014), 2\textsuperscript{nd} ed Mosby  
A review of concepts and current clinical information on diagnosis, planning and clinical treatment

**GILL D**  
Orthodontics at a Glance (2008), 1\textsuperscript{st} ed Wiley-Blackwell  
An easy to read basic introduction to the subjects in this module

**GRABER LW, VANARSDALL RL, VIG KWL**  
Orthodontics: Current Principles and Techniques (2011), 5\textsuperscript{th} ed Mosby  
A reference guide to techniques in orthodontics

**NANDA R**  
Biomechanics and Esthetic Strategies in Clinical Orthodontics (2005), 1\textsuperscript{st} ed Saunders  
A comprehensive guide on basic biomechanical principles in orthodontics
Year 2 Modules
Fundamentals of Orthodontic Treatment of Skeletal Problems in Preadolescence and Adolescence

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Educational Aims

To introduce students to:

- general protocols specific to skeletal orthodontic problems
- contemporary fixed, removable and functional orthodontic appliances
- special consideration in severe cases in preadolescents and adolescents

Learning Outcomes

| L01 | critically evaluate the fundamental protocols for orthodontic treatments of skeletal problems | K1 C1 |
| L02 | comprehensively understand the theory and systematically evaluate the safe practice of contemporary orthodontics and growth control in preadolescent and adolescent children | K2 C2 |
| L03 | synthesise information on skeletal problems, surgically assisted orthodontics and complex clinical cases | C3 P1 |
| L04 | critically evaluate tooth movements and how to control them effectively in preadolescent and adolescent patients | C4 P2 |

Assessments

Summative
A written assignment of 1,500 words (100%) (L01 – L04)

Formative
Critical appraisal and treatment planning
Indicative Syllabus

1. **Orthodontic protocols in treating skeletal problems**

Principles of defining skeletal problems and assessing the severity of the malocclusion
Considerations related to age and gender in skeletal problems in preadolescents and adolescents
Special consideration in severe cases
Biomechanical differences between orthodontic cases and other ones combined with orthognathic surgery
Principles of combining treatment modalities to achieve the best possible results

2. **Specific problems in skeletal malocclusions**

Principles in treating skeletal abnormalities
Assessment of the severity of the problem
Anchorage control modalities and the potential of the skeletal growth modification
Surgically assisted orthodontic treatments
Growing into a skeletal problem in the adult life
Retention problems
Limitations, options and hopes
Module Reading

Below is a list of essential and recommended texts to read. These are all available in the library unless they are out of print in which case they will be on order. For those texts that repeatedly appear in the reading lists, it may be useful to buy your own copies so you can annotate the textbooks.

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An updated classic text on functional appliance treatments

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A concise but excellent resource full of numerous useful references

Recommended Reading

COBOURNE MT, DIBIASE AT
Handbook of Orthodontics (2010), 1st ed Elsevier
An easy to read basic introduction to the subjects in this module

COBOURNE MT, FLEMING PS, DIBIASE AT, AHMAD S
Clinical Cases in Orthodontics (2012), 1st ed Wiley-Blackwell
Problem based learning with real-life orthodontic cases

ENGLISH JD, AKYALCIN S, PELTOMAKI T, LITSCHEL K
Orthodontic Review (2014), 2nd ed Mosby
A review of concepts and current clinical information on diagnosis, planning and clinical treatment

ESEQUIEL ERY, WHITE L
1,001 Tips for Orthodontics and its Secrets (2013), 1st ed MedTech
A practical guide on clinical orthodontics and the management of emergencies

GILL D
An easy to read basic introduction to the subjects in this module

GRABER LW, VANARSDALL RL, VIG KWL
A reference guide to techniques in orthodontics

MILLET D, WELBURY R
Clinical Problem Solving in Orthodontics and Paediatric Dentistry (2011), 2nd ed Churchill Livingstone
Illustrated clinical scenarios providing the reader with treatment planning assistance and decision-making help

MIZRAHI E
Orthodontic Pearls (2015), 2nd ed CRC Press
Provides information on administrative and clinical orthodontic practice

NANDA R
Biomechanics and Esthetic Strategies in Clinical Orthodontics (2005), 1st ed Saunders
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**Related Modules**

| Pre-requisites | None |
| Co-requisites | None |
| Post-requisites | None |

**External Accrediting Body**

None

**Educational Aims**

To introduce students to:

- general protocols specific to non-skeletal orthodontic problems
- contemporary fixed and removable orthodontic appliances
- special consideration in early treatments in preadolescent and adolescent children
- decision making in space-related problems in orthodontics

**Learning Outcomes**

| LO1 | critically evaluate the fundamental protocols for orthodontic treatments of non-skeletal problems | K1 C1 |
| L02 | comprehensively understand the theory and safe practice of contemporary orthodontics in pre-adolescent and adolescent children | K2 C2 |
| L03 | devise and plan orthodontic treatments in non-skeletal cases with special emphases on space-related problems and eruption, impaction and complex cases | C3 P1 |

**Assessments**

**Summative**

A written assignment of 1,500 words (100%) (LO1 – LO3)

**Formative**

Critical appraisal and treatment planning
Indicative Syllabus

1. **Orthodontic protocols in treating non-skeletal problems**

   Principles of defining non-skeletal problems
   Considerations related to age and gender in non-skeletal problems in pre-adolescents and adolescents
   Special consideration in early treatments
   Biomechanical differences between complete and partial appliance therapy
   General principles of habit control strategies in children and adults
   Principles of combining treatment modalities to achieve the best possible results

2. **Specific problems in pre-adolescent and adolescent patients**

   Biology of orthodontic tooth movement in growing patients (covered in year 1)
   The mechanobiology of the eruption and periodontal tissues and the biological aspects of bone growth and metabolism in growing patients (covered in year 1)
   Treatment planning bases in the growing patient
   Anchorage control in the growing patient
   Occlusal relationship problems
   Eruption problems
   Ectopic eruption
   Traumatic displacement of teeth
   Space-related problems
   Borderline problems and cases with potential skeletal problems
Module Reading

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- Post-requisites: None
- Excluded Combinations: None

Educational Aims
To introduce students to:

- general protocols specific to orthodontic problems in adults
- contemporary orthodontic appliances for adult patients
- special consideration in orthognathic and special cases
- fundamentals of orthodontic research

Learning Outcomes

<table>
<thead>
<tr>
<th>LO</th>
<th>Statement</th>
<th>K</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>L01</td>
<td>critically evaluate the fundamental protocols for orthodontic treatments in adults</td>
<td>K1</td>
<td>C1</td>
</tr>
<tr>
<td>L02</td>
<td>comprehensively understand the theory and systematically critique the safe practice of contemporary orthodontics in adults</td>
<td>K2</td>
<td>C2</td>
</tr>
<tr>
<td>L03</td>
<td>synthesise clinical information on the unique nature of orthognathic cases</td>
<td>C3</td>
<td>P1</td>
</tr>
<tr>
<td>L04</td>
<td>critically evaluate the research base of orthodontics</td>
<td>C4</td>
<td>P2</td>
</tr>
</tbody>
</table>

Assessments

Summative
A written assignment of 1,500 words (100%) (LO1 – LO4)

Formative
Case presentation and treatment planning
Indicative Syllabus

1. Orthodontic protocols in treating adult patients

- Principles of diagnoses and developing treatment lists in adult patients
- Assesing the severity of the malocclusion and its psychological effect on the adult patient
- Considerations related to the adult (non-growing) patient
- Special considerations to appliance design, anchorage control, bonding problems, periodontal and other dental limitations in adults
- Biomechanical differences between orthodontic cases and other ones combined with orthognathic surgery in adults
- Camouflage orthodontics

2. Interdisciplinary vs multidisciplinary treatments in adults

- Principles of interdisciplinary and multidisciplinary treatments in adults
- Communication and interactions during treatment
- Treatment sequences in special cases
- Post-orthodontic treatments and orthodontic relapse
- Interdisciplinary collaboration between orthodontics and other dental and medical fields
- Combined surgical and orthodontic treatments
- Patients with temporomandibular disorders
- Limitations of orthodontics in adults

3. Research aspects and management systems specific to orthodontics

- Knowledge of cross-infection control procedures including cleaning, sterilisation and disinfection principles in orthodontics
- The management of the orthodontic patient treatment and related computerised programmes
- Delegation and supervision of auxiliaries
- Use of the hygienists and the therapists in orthodontics
- Basic information and data storage and protection relevant to orthodontics
- Monitoring and maintaining standards of the daily practice of orthodontics
- Scientific research aspects in orthodontics
- Audits and peer review in orthodontics
- Statistical methods and clinical trials in orthodontics
- The future of orthodontics
Module Reading

Below is a list of essential and recommended texts to read. These are all available in the library unless they are out of print in which case they will be on order. For those texts that repeatedly appear in the reading lists, it may be useful to buy your own copies so you can annotate the textbooks.

To provide you with a prescriptive list of journal articles would make this section exceptionally long so each lecturer will guide you towards landmark scientific journal articles during and at the end of their lecture.

You should also make use of the references at the end of each of the relevant chapters of the texts below since these texts are a portal to accessing original scientific journal articles.

Please also remember there are other resources such as but not limited to the Cochrane Collaboration, British Orthodontic Society Advice Sheets and Royal College of Surgeon’s Clinical Guidelines.

Essential Reading

A complete multi-disciplinary resource on the management of hypodontia

MELSON B
Adult Orthodontics (2012), 1st ed Wiley-Blackwell
A step-by-step guide to the treatment of adult patients

MITCHELL L
An Introduction to Orthodontics (2013), 4th ed OUP
Provides a basic introduction to the subjects in this module

PROFFIT WR, FIELDS HW, SARVER DM
Contemporary Orthodontics (2012), 5th ed Elsevier
Provides a comprehensive review to the subjects in this module

RINCHUSE DJ, RINCHUSE DJ, MILES P
Evidence Based Clinical Orthodontics (2012), 1st ed Quintessence
A systematic review of specific topics in orthodontics

UNIVERSITY OF BRISTOL
Post-graduate Notes in Orthodontics (2012), 6th ed University of Bristol
A concise but excellent resource full of numerous useful references

Recommended Reading

COBOURNE MT, DIBIASE AT
Handbook of Orthodontics (2010), 1st ed Elsevier
An easy to read basic introduction to the subjects in this module

ENGLISH JD, AKYALCIN S, PELTOMAKI T, LITSCHEL K
Orthodontic Review (2014), 2nd ed Mosby
A review of concepts and current clinical information on diagnosis, planning and clinical treatment

GILL D
An easy to read basic introduction to the subjects in this module

GRABER LW, VANARSDALL RL, VIG KWL
A reference guide to techniques in orthodontics

KOKICH VG, MATTHEWS DP
Orthodontic and Surgical Management of Impacted Teeth (2014), 1st ed Quintessence
A comprehensive book on the management of impacted teeth
Advanced Clinical Practice

<table>
<thead>
<tr>
<th>School</th>
<th>School of Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme</td>
<td>MClin Dent (Orthodontics and Dentofacial Orthopaedics)</td>
</tr>
<tr>
<td>Module Leader</td>
<td>Simon Ash</td>
</tr>
<tr>
<td>Level</td>
<td>Level 7</td>
</tr>
<tr>
<td>Credit Value</td>
<td>30 Credits</td>
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<tr>
<td>Contact Hours</td>
<td>50 Hours</td>
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<td>Related Modules</td>
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</tr>
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<td>Pre-requisites</td>
<td>None</td>
</tr>
<tr>
<td>Co-requisites</td>
<td>None</td>
</tr>
<tr>
<td>Post-requisites</td>
<td>None</td>
</tr>
<tr>
<td>Excluded Combinations</td>
<td>None</td>
</tr>
<tr>
<td>Excluded</td>
<td>None</td>
</tr>
<tr>
<td>Educational Aims</td>
<td></td>
</tr>
<tr>
<td>To introduce students to:</td>
<td></td>
</tr>
<tr>
<td>• the advanced practice of this specialist subject</td>
<td></td>
</tr>
<tr>
<td>• decision making and clinical protocols</td>
<td></td>
</tr>
<tr>
<td>Learning Outcomes</td>
<td></td>
</tr>
<tr>
<td>LO1</td>
<td>confidently and systematically identify and select suitable clinical cases</td>
</tr>
<tr>
<td></td>
<td>C1 P1</td>
</tr>
<tr>
<td>LO2</td>
<td>confidently and systematically diagnose and treatment plan clinical cases</td>
</tr>
<tr>
<td></td>
<td>C2 P2</td>
</tr>
<tr>
<td>LO3</td>
<td>demonstrate advanced and proficient skills in this specialist subject</td>
</tr>
<tr>
<td></td>
<td>P3</td>
</tr>
<tr>
<td>Assessments</td>
<td></td>
</tr>
<tr>
<td>Summative</td>
<td>A portfolio of four case diaries (1,500 words each), three standard cases and one advanced case. (100%) (LO1 – LO3)</td>
</tr>
<tr>
<td>Clinical examination (P/F)</td>
<td>(LO3)</td>
</tr>
<tr>
<td>Formative</td>
<td>Monthly case presentation days</td>
</tr>
</tbody>
</table>
Indicative Syllabus

1. Knowledge of the basic principles of this specialist subject and their application in patient care.

2. Successful significant participation in 4 supervised clinical cases that the student can apply all of the following in patient care: competency to diagnose, plan, discuss, evaluate and reflect on treatment in accordance with sound principles, and the ability to consistently propose safe, sound and ethical treatment plans.

3. Soft and hard tissues with respect and according to sound principles.

4. Competence when carrying out procedures and according to the protocols of the respective systems.


6. Plan and manage simple clinical procedures as they arise.

7. Identify and effectively manage complications as they arise appreciation of personal limitations, and the maturity and willingness to discuss and manage complex cases with your colleagues.

8. Competently plan and instigate retention maintenance programme.
**Module Reading**

For this module you should review the entire essential (and recommended) reading to date.

To provide you with a prescriptive list of journal articles would make this section exceptionally long so each clinician will guide you towards landmark scientific journal articles during and at the end of the clinical sessions.

You should also make use of the references at the end of each of the relevant chapters of the texts since these texts are a portal to accessing original scientific journal articles.

Please also remember there are other resources such as but not limited to the Cochrane Collaboration, British Orthodontic Society Advice Sheets and Royal College of Surgeon’s Clinical Guidelines.
## Common Year Advanced Clinical Practice Module (MClinDent)
### Scheme of Work
#### Part-Time

<table>
<thead>
<tr>
<th>Pre-session</th>
<th>Provisional topics that may be covered during this module include:</th>
<th>Post-session</th>
</tr>
</thead>
</table>
| Prepare actual case data for treatment planning presentation; Review various treatment protocols | • Introduction: clinical cases  
• Diagnosis and treatment planning  
• Start literature searching for similar cases  
• Treatment paradigms and protocols | Consolidate treatment plans and conduct literature search to find best available supporting evidence for care |
| Review treatment outcomes and present completed cases with supporting documentation | • Outcomes/measures of success and failure – lecture and discussion using case studies  
• Brainstorming proposal various alternative treatment plans and outcome  
• Evaluate treatment outcome | Using the process and outcome template provided, start to evaluate outcomes at various stages of treatment to determine what went well and what could have been changed |
Common Year Advanced Clinical Practice Module (MClinDent)
Scheme of Work
Full-Time each week for 32 weeks

<table>
<thead>
<tr>
<th>Pre-session</th>
<th>Provisional topics that may be covered during this module include:</th>
<th>Post-session</th>
</tr>
</thead>
</table>
| Prepare actual case data for treatment planning presentation; Review various treatment protocols | • Introduction: clinical cases  
• Diagnosis and treatment planning  
• Start literature searching for similar cases  
• Treatment paradigms and protocols | Consolidate treatment plans and conduct literature search to find best available supporting evidence for care |

| Review treatment outcomes and present completed cases with supporting documentation | • Outcomes/measures of success and failure – lecture and discussion using case studies  
• Brainstorming proposal various alternative treatment plans and outcome  
• Evaluate treatment outcome | Using the process and outcome template provided, evaluate outcomes at various stages of treatment to determine what went well and what could have been changed |
Year 3 Modules
Evidence Based Dentistry
Understanding Research

<table>
<thead>
<tr>
<th>School</th>
<th>School of Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme</td>
<td>MClin Dent (Orthodontics and Dentofacial Orthopaedics)</td>
</tr>
<tr>
<td>Module Leader</td>
<td>Adrian Hunnisett</td>
</tr>
<tr>
<td>Level</td>
<td>Level 7</td>
</tr>
<tr>
<td>Credit Value</td>
<td>20 Credits</td>
</tr>
<tr>
<td>Contact Hours</td>
<td>20 Hours (Part-time)</td>
</tr>
<tr>
<td></td>
<td>1 Hour/week (Full-time)</td>
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</table>

<table>
<thead>
<tr>
<th>Related Modules</th>
<th>Pre-requisites</th>
<th>Completed all of Year 1 &amp; Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-requisites</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Post-requisites</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Excluded</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Combinations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| External Accrediting Body | None |

Educational Aims

To introduce students to:

- methods and types of data collection used in common clinical research designs
- concepts behind the use of statistical description and analysis of data
- the skills required for effective access, rigorous evaluation and dissemination of research
- making reasoned judgements after analysis of the evidence
- the skills to generate innovative strategies to solve unfamiliar problems
- the skills to develop a research proposal that underpins the initial implementation of work on a research dissertation that will be completed in the final year

Learning Outcomes

<table>
<thead>
<tr>
<th>LO1</th>
<th>discriminate between the varied approaches used in different research designs and consider their appropriateness for different types of research questions</th>
<th>K1</th>
<th>C1</th>
<th>P1</th>
<th>T1</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO2</td>
<td>compare and contrast the types of statistical analysis used in different research designs, the concepts underpinning their appropriate use and strengths and weakness relevant to dental research</td>
<td>K2</td>
<td>C2</td>
<td>P2</td>
<td>T2</td>
</tr>
<tr>
<td>LO3</td>
<td>exercise appropriate judgement in planning, selecting or presenting information methods or resources</td>
<td>C3</td>
<td>T3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO4</td>
<td>refine the research questions to develop a research proposal that demonstrates originality and the potential to advance knowledge at the forefront of the subject</td>
<td>C4</td>
<td>P3</td>
<td>T4</td>
<td></td>
</tr>
</tbody>
</table>
Assessment

Summative
Written assignment (40%) (LO1 – LO2)
One x 1,500 word research proposal (60%) (LO3 – LO4)

Formative
One x 5 minute presentation of research proposal for peer and tutor evaluation
One x 10 minute presentation of research protocol for peer and tutor evaluation
Indicative Syllabus

This module will give students the areas of knowledge which are required during the third year of the programme and provides the tools needed for the professional project. This is a comprehensive module covering clinical statistics, evidence based practice, critical appraisal, measurement, and research design, and explores their specific application in dental research and treatment. It also enables students to identify and access the information they need in the dental literature, reading it from a critical viewpoint, and applying rules and measurements to assess the validity of methodology and conclusions.

This module will introduce different types of research design, collection of data and subsequent statistical analysis. The overall aim is to outline how research is carried out and what methods are most appropriate for answering research questions. The areas covered are as follows:

- Research Designs
  - experiments and interventions
  - surveys and quasi-experiments
  - single subject designs
  - qualitative designs
- Data
  - questionnaires
  - interview techniques
  - observation
- Measurement and instrumentation
- Statistics
  - selection and use of statistical tests
  - descriptive statistics
  - analytical statistics
- The research process
- The research question
- Planning clinical research
- Ethical Issues in clinical research
- Writing a research protocol
- Presenting a research protocol
- Practical issues in implementing research
- Initial work on the research dissertation
Essential Reading

DAWSON C
Introduction to Research Methods (2009), 4th ed How To Books

Recommended Reading

Altman DG, Gore SM, Gardner MJ, Pocock SJ
## Common Year 3 Research Module (MClinDent)
### Scheme of Work
#### Residential Week 1 (Week 1)

<table>
<thead>
<tr>
<th>Provisional topics that may be covered during this module include</th>
<th>Post-session</th>
</tr>
</thead>
</table>
| • Introduction to clinical research  
• The research process  
• Research paradigms and designs | Consolidate notes and review YouTube videos  
**Basic research design:** [http://www.youtube.com/watch?v=wxGEUljdWZo](http://www.youtube.com/watch?v=wxGEUljdWZo)  
[http://www.youtube.com/watch?v=n6cSX8jmhIU](http://www.youtube.com/watch?v=n6cSX8jmhIU)  
**Clinical trial design:** [http://www.youtube.com/watch?v=186kvAT-WNo](http://www.youtube.com/watch?v=186kvAT-WNo) |
| • The research proposal – lecture and discussion  
• Brainstorming proposal ideas and planning | Using the template provided, start to prepare ideas for research proposal |
| • Literature searching and reviews, covering:  
  ○ Basic process and tips  
  ○ Proposal development | Review: [http://www.youtube.com/watch?v=jKL2pdRmwc4](http://www.youtube.com/watch?v=jKL2pdRmwc4)  
Continue literature searching for research ideas |
| • Reviewing scientific literature  
• Writing scientific literature  
• “What is the literature telling me?” | Consolidate notes on literature & critical appraisal  
Review: [http://www.youtube.com/watch?v=XvnUojPCftk](http://www.youtube.com/watch?v=XvnUojPCftk) |

Q&A from residential week
Evidence Based Dentistry
Professional Project

<table>
<thead>
<tr>
<th>School</th>
<th>School of Health</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Module Leader</td>
<td>Adrian Hunnisett</td>
</tr>
<tr>
<td>Level</td>
<td>Level 7</td>
</tr>
<tr>
<td>Credit Value</td>
<td>40 Credits</td>
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<tr>
<td>Contact Hours</td>
<td>20 Hours (Part-time) 1 Hour/week (Full-time)</td>
</tr>
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</table>

### Related Modules

<table>
<thead>
<tr>
<th>Related Modules</th>
<th>Pre-requisites</th>
<th>Co-requisites</th>
<th>Post-requisites</th>
<th>Excluded Combinations</th>
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</thead>
<tbody>
<tr>
<td>Completed all of Year 1 &amp; Year 2</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<tr>
<td>External Accrediting Body</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Educational Aims

This module will develop in the student the ability to:

- implement and complete a research project
- systematically collect and analyse data critically
- write up a research dissertation that advances knowledge at the forefront of the subject

### Learning Outcomes

On completion of this module students will have the necessary skills to implement and write up a research dissertation of up to 15,000 words.

<table>
<thead>
<tr>
<th>LO</th>
<th>Learning Outcomes</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO1</td>
<td>critically evaluate relevant dental and/or scientific literature pertaining to their research question</td>
<td>C1 P1 T1</td>
</tr>
<tr>
<td>LO2</td>
<td>systematically apply knowledge in an original manner to research problems to formulate new ideas, methods or conclusions</td>
<td>C2 P2 T2</td>
</tr>
<tr>
<td>LO3</td>
<td>demonstrate proficiency in advanced techniques necessary for the acquisition of primary research data</td>
<td>C3 P3 T3</td>
</tr>
<tr>
<td>LO4</td>
<td>complete a research dissertation that is justified by a critical awareness of current problems in the field, and shows insight and originality in the application of methods, in the presentation of results and in the critical discussion of results pertaining to their research question</td>
<td>C4 P4 T4</td>
</tr>
</tbody>
</table>
Assessment

Summative
One x 3,000 word research protocol (30%) (LO1 – LO3)
Research Dissertation (15,000 words max) – completion of a research report that shows critical awareness at the forefront of dental research in the development of an original research question and presents new data that is evaluated critically so that it advances knowledge in the field. (70%) (LO1 – LO4)

Formative
At Level 7, formative work is set in the form of a requirement for the student to continuously evaluate and reassess their project and own performance and then to act on this by making changes that are rational and based on sound judgement and which show a good deal of autonomy in the decision-making process.

In particular:

- Shows records of discussions with project supervisor which document the intellectual basis on which decisions to alter or not alter the project have been made.
- Maintains documentation that shows ongoing reflection on the project in terms of milestones achieved, data obtained and appropriateness of methodology and data analysis.
- Shows evidence of accountability and autonomy in conducting the research project and show how these attributes enable sound judgements to be made even where complete information is unavailable
Indicative Syllabus

1. Ongoing critical evaluation of relevant literature pertaining to the research question

2. Reassessment of the original research question and methodology in the light of preliminary results

3. Critical evaluation of issues concerned with methodology and statistical analysis in clinical research

4. Issues concerned with monitoring research progress and writing and presenting research
Essential Reading

BRUNETTE DM
Critical Thinking: Understanding and Evaluating Dental Research (2007), 2nd ed
Quintessence

Recommended Reading

CORLEY RB
## Common Year 3 Research Module (MClinDent)
### Scheme of Work
#### Residential Week 2 (Week 8)

<table>
<thead>
<tr>
<th>Provisional topics that may be covered during this module include:</th>
<th>Post-session</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The research protocol&lt;br&gt;• Research ethics&lt;br&gt;• BPP School of Health Research ethics form</td>
<td>Using the template provided, start to prepare research protocol from the proposal&lt;br&gt;Review the BPP School of Health Research Ethics Application</td>
</tr>
<tr>
<td>• Secondary research data: Systematic reviews &amp; meta analysis&lt;br&gt;• Literature searching and reviews, covering:&lt;br&gt;  o Protocol&lt;br&gt;  o Dissertation</td>
<td>Review: <a href="http://www.youtube.com/watch?v=3dyp7R_su7E">http://www.youtube.com/watch?v=3dyp7R_su7E</a>  <a href="http://www.youtube.com/watch?v=mAAfvXZPHtE">http://www.youtube.com/watch?v=mAAfvXZPHtE</a>  Review: <a href="http://www.youtube.com/watch?v=jKL2pdRmwc4">http://www.youtube.com/watch?v=jKL2pdRmwc4</a> Start literature searching for protocol development</td>
</tr>
<tr>
<td>• Critical appraisal&lt;br&gt;• Critical appraisal workshop</td>
<td>Consolidate notes on literature &amp; critical appraisal&lt;br&gt;Review: <a href="http://www.youtube.com/watch?v=AsD9Lp-q45Y&amp;list=PL3F837DEAA628AFB7">http://www.youtube.com/watch?v=AsD9Lp-q45Y&amp;list=PL3F837DEAA628AFB7</a>  <a href="http://www.youtube.com/watch?v=DyVIXLhzRFA">http://www.youtube.com/watch?v=DyVIXLhzRFA</a>  <a href="http://www.youtube.com/watch?v=2gVIgw9NYzo">http://www.youtube.com/watch?v=2gVIgw9NYzo</a>  <a href="http://www.youtube.com/watch?v=20NpnXa4Ull">http://www.youtube.com/watch?v=20NpnXa4Ull</a>  <a href="http://www.youtube.com/watch?v=sWCo0fCtnU">http://www.youtube.com/watch?v=sWCo0fCtnU</a>  <a href="http://www.youtube.com/watch?v=ruliUAN0U3w">http://www.youtube.com/watch?v=ruliUAN0U3w</a></td>
</tr>
<tr>
<td>• Descriptive statistics&lt;br&gt;• Inferential statistics&lt;br&gt;• Statistics workshop</td>
<td>Consolidate notes on statistical approaches&lt;br&gt;Review: <a href="http://www.youtube.com/watch?v=2gVIgw9NYzo">http://www.youtube.com/watch?v=2gVIgw9NYzo</a>  <a href="http://www.youtube.com/watch?v=20NpnXa4Ull">http://www.youtube.com/watch?v=20NpnXa4Ull</a>  <a href="http://www.youtube.com/watch?v=sWCo0fCtnU">http://www.youtube.com/watch?v=sWCo0fCtnU</a>  <a href="http://www.youtube.com/watch?v=ruliUAN0U3w">http://www.youtube.com/watch?v=ruliUAN0U3w</a></td>
</tr>
</tbody>
</table>

Q&A from residential week
SECTION 3 – LEARNING, TEACHING AND ASSESSMENT

Feedback on Your Work

Feedback on your work can take many forms, but each form is designed to enhance and improve your performance. There is an expectation that you are responsible for your own development; obtaining and responding to feedback is an essential component with this process.

Feedback on the module will include:

- Written comments from the module team, which will be attached to your assignments or made available electronically. This will be constructive and will focus on the strengths of your work and how you could improve your performance. Comments will relate directly to the extent of how you have achieved the assignment learning outcomes.

- Generic feedback will be given to students on their performance with all examinations including group work.

- You may receive verbal feedback on formative work, which is intended to aid your learning experience.

- You will also be expected to reflect upon your own work. Self-assessment and reflection are essential components of professional health and social care practice and are instrumental in ensuring you learn from your experiences within academic theory and practice-based learning.

- For all assessed academic work, feedback will be available four weeks after the submission date. This feedback and any grade awarded are provisional until the Board of Examiners have ratified your awarded grade.

Remember to use your feedback in conjunction with the assignment; the aim is to improve your performance, use feedback constructively to plan future work and performance. Where you are unclear with regards to the feedback, you should seek further clarification from the module team and or your personal tutor.

Submission of Coursework

Within the School of Health, all course work must be submitted PRIOR TO 12 NOON. Coursework submission dates will fall between a Monday and a Thursday. Once a student has submitted course work it cannot be retrieved. It is your responsibility to ensure that you have adhered to the submission of course work and examination schedule (SCWES).

Where modules of study require students to submit formative and/or summative assessment items online, the above mode of submission applies. Module Tutors and the Programme Manager will give students guidance on the submission process.
For information regarding the extension of deadline date of course work please refer to the Manual of Policies and Procedures (MoPPs)/Part H; Section 5: Extension of Deadline Date for Assessments Procedure

For information regarding mitigating circumstances and concessions please refer to the Manual of Policies and Procedures (MoPPs)/Part H; Section 6: Rules on Concessions.

For information regarding assessment rules and re-assessment of failed assessments please refer to the Manual of Policies and Procedures (MoPPs)/Part H; Section 1: Assessment Rules: Postgraduate Awards: September 2013 onwards.

Word Limit

All course work items are set a maximum word length, and you should indicate the number of words you have used on the title page of each piece of coursework.

You may use fewer words, but any words more than the word limit stated in the Summative Assessment Module word count will not be marked. A consequence of this could result in a ‘pass mark’ dropping to a ‘fail mark’.

The word count does not include references, tables, or quotations. However, it should be noted that quotations should be used sparingly, and only when a writer makes a significant and important point that cannot be presented effectively in your own words.

Guidance on Presentation of Assessed Work

Written assignments should be word-processed:

- 1.5-2.0 line spacing
- Single sides of A4
- Font: Black, Arial size 11
- Include the word count
- Student number must be on the cover page
- Page numbers should be included

Advice on Proof Reading

Proof reading your assignments and course work prior to submitting them for marking ensures that you have an opportunity to guarantee that your work is of an acceptable academic standard. This process allows you to check for missing words, spelling mistakes, and punctuation including checking that question marks, apostrophes, commas, and full stops are in the right place.

- Make use of the spell check device that is available on your computer.
- Use other functions such as the thesaurus and formatting tools for presentation.

Anonymous Marking

The School of Health operates an anonymous marking policy for all students on its programmes and as such you should, wherever possible and practical, ensure that your
anonymity is maintained. Your work should only be identified using your unique BPP student number. Anonymous marking is a system whereby your identity is not made known to the internal/external marker/examiner at the time of marking.

Presentations and assessment of practice-based learning are not marked anonymously due to the nature of these assessments. However, course work, written examinations, online examinations, and case studies are all marked against your student number only.

Referencing

The correct and appropriate use of references in the text fulfils a number of purposes:

- It allows you to present supportive evidence to illustrate a point that you are making.
- It provides evidence to the marker that you have reviewed the literature in a specific programme of study and you are able to introduce theories that are supported by the literature which link to your own arguments.
- It enables the marker to identify the source of the literature you have reviewed, so they can review the literature themselves.
- The School of Health uses the Harvard referencing system within all its programmes of study.
- Please see section 5 of this handbook for appropriate referencing.

Confidentiality

The School of Health places immense emphasis on students maintaining confidentiality in any type of course work. The programme acknowledges the need for confidentiality in relation to the Data Protection Act (1998).

For the purposes of submitted items of assessment, we interpret confidential information to mean any information that identifies an individual (including identification of any professional), any personal details, any place, or any information, which may lead to an individual's identification.

Assignments that require you to draw on real-life experience must be appropriately anonymised and pseudonyms used to protect the anonymity of the service user, their carer, or family. This applies to all written work, presentations, portfolio and reflective commentaries (even material that is not submitted for marking), seminars, and practice-based evidence.

NB. Information that is clearly in the public domain and that can be accessed by members of the public (e.g. via the internet such as public reports or policies) do not come under confidentiality requirements.

Breaches of Confidentiality

The general principles below describe situations where confidentiality would be breached:
• Never use individual’s real names, whoever they may be. It is acceptable to describe individuals by their role except when their role is so unique that the role holder is easily identifiable.
• If you are required to submit original or photocopied material, all specific identifying information must be removed or masked.
• Avoid the identification of clinical or practice-based learning areas.
• Prior to including policies, procedures, and business information in your practice-based learning experience, ensure that you check if it is accessible in the public domain.

Breaches of confidentiality will result in your work being referred.

Cheating and Unfair Practices

At BPP, we take a strong stance against unfair practices which jeopardise the integrity and reputation of the University and its examination and assessment processes. In addition, as a leading provider of professional education in Law, Finance, Business, and Health and Social Care, we believe in the education and training of professionals who are guided in all matters by strong moral principles and values of professional integrity. You must abide by our Unfair Practices Regulations and refrain from any actions that would breach our code. Unfair Practice is defined as an act leading to circumstances whereby a student or another may gain unfair or unpermitted advantage in an examination or assessment.

Examples of unfair practices include, but are not limited to, plagiarism (copying or imitating text or material from another author or source, including the Internet, without proper acknowledgment or referencing); collusion (unauthorised collaboration in assessments); fabrication of data or results from empirical study; impersonation of another person’s identity, e.g. in order to undertake an examination on their behalf; academic misconduct which includes acts such as utilising prohibited or unauthorised material in assessments, attempts to influence a BPP official by bribery or other unfair means, untruthful claims of mitigating circumstances, false declarations of word count, failure to observe examination and assessment requirements of timing and principled conduct among others.

All members of BPP staff have a professional obligation to report instances of unfair practice. Alleged cases are investigated and acted upon by the Director of Programmes in conjunction with the Academic Registrar. Instances of alleged violations are investigated and addressed by an Unfair Practice Panel, convened by the Academic Registrar and may result in a fitness to practice panel being convened.

Penalties imposed for a violation include, but are not limited to: a written warning in the student’s file; deduction of marks from an assessment to negate any advantage gained by the violation; voiding the assessment, examination, or entire module or assigning a mark of zero; capping the award classification available to the student; or termination of the student’s registration, among others.

In addition, where a programme leads to the award of a statutory or professional body, any identified violation of the Unfair Practice Regulations may be reported to that body.
Please refer to the Section 9: Unfair Practice Procedures of the Manual of Policies and Procedures (Part H, Section 9) for detailed information and guidance. You are strongly encouraged to familiarise yourself with the College’s regulations in relation to unfair practice as ignorance will not be deemed an acceptable excuse in claims of unintentional offences.

**Appeals**

At BPP, we are committed to acting in the best interest of our students while abiding by principles of fairness and integrity in all matters. The General Academic Regulations make comprehensive provisions for the review of and appeals against College decisions, in order to ensure that all students are treated in a fair and reasonable manner. We shall make every effort to hear and determine all applications and appeals from students as expeditiously as reasonably possible, having regard to the circumstances of each individual case and the requirements of natural justice and fairness. Detailed information and guidance can be found in the Manual of Policies and Procedures (MoPPs) Part K.

**Attendance**

You are expected to be punctual in arriving for lectures, seminars, and clinical training seminars. We recognise that this may not always be possible, but out of courtesy to teaching staff and your fellow students there is an expectation that you wait for an appropriate point to enter the session as not to disrupt classes.
SECTION 4 – PROGRAMME REGULATIONS

Authority

These regulations are made under the authority of the University’s General Academic Regulations, Part A, Paragraph 7, and in accordance with these provisions, are cited as the Masters in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics) Regulations.

Conflict with the General Academic Regulations

Practical and clinical modules may not be condoned.

Conditions for Admission

For UK applicants:

- Undergraduate qualification in Dentistry and
- Completion of at least one year in clinical practice and
- Current GDC practising certificate

For overseas applicants:

- Undergraduate qualification in Dentistry and
- Completion of at least one year in clinical practice and
- Letter of good standing or equivalent from an appropriate regulatory dental body and
- IELTS score of 6.5 overall (with a minimum of 6.0 in each component)

Conditions of Acceptance

An offer of a place on the programme is subject to the terms and conditions stated in the documentation accompanying the offer. These regulations and the General Academic Regulations are in force at the time of interpretation. The acceptance of the offer is taken as agreement to these regulations.

Conditions for Progression

The programme is divided into: Year 1: PG Certificate in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics) (60 M credits); Year 2: PG Diploma in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics) (60 M credits) and following successful completion of the Research Dissertation, Masters in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics) (180 M credits).

A student may not progress to the next year of the programme until they have passed all modules in that year and may not submit the dissertation until they have successfully completed the credits for the PGDip award.

Prerequisite
There are no prerequisite modules within each year.

Changing Modules or Specialisations

Students must complete all the modules on the programme.

Conditions for the Granting of Awards

No students shall be entitled to enrol for an award other than the Masters in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics).

A student who completes an approved programme of study, as described in the Programme Specification shall be awarded a Masters in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics).

Those students who choose to exit the Programme without completing it may nevertheless be entitled to exit with an award as indicated below:

1. PG Certificate in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics) provided they complete an approved programme of modules and the learning outcomes for such award as set out in the Programme Handbook

2. PG Diploma in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics) provided they complete an approved programme of modules and the learning outcomes for such award as set out in the Programme Handbook

3. Masters in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics) provided they complete an approved programme of modules and the learning outcomes for such award as set out in the Programme Handbook

Classification of Award

The title of the award on successful completion of the programme will be Masters in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics). The following classification will be adopted:

- Distinction: 70% or above aggregate score
- Merit: 60-69% aggregate score
- Pass: 50-59%

Programmes of Study for the Granting of Awards

To be awarded a Masters in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics), students must have completed an approved programme of study, as set out overleaf.
# Programme of Study for the Granting of Awards

<table>
<thead>
<tr>
<th>Module</th>
<th>Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
<td></td>
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<tr>
<td>Principles of Growth and Development</td>
<td>Compulsory</td>
<td>20</td>
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<tr>
<td>Principles of Orthodontic Diagnosis and Treatment Planning</td>
<td>Compulsory</td>
<td>20</td>
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<tr>
<td>Principles of Orthodontic Treatment Protocols</td>
<td>Compulsory</td>
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<tr>
<td><strong>Exit Award: PG Certificate in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics)</strong></td>
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<td><strong>Year 2</strong></td>
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<tr>
<td>Fundamentals of Orthodontic Treatment of Skeletal Problems in Preadolescence and Adolescence</td>
<td>Compulsory</td>
<td>10</td>
</tr>
<tr>
<td>Fundamentals of Orthodontic Treatment of Non-skeletal Problems in Preadolescence and Adolescence</td>
<td>Compulsory</td>
<td>10</td>
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<tr>
<td>Fundamentals of Adult Orthodontics and Orthognathic Cases</td>
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<tr>
<td>Advanced Clinical Practice</td>
<td>Compulsory</td>
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<tr>
<td><strong>Exit Award: PG Diploma in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics)</strong></td>
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<td><strong>Year 3</strong></td>
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<td>Evidence Based Dentistry: Understanding Research</td>
<td>Compulsory</td>
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<tr>
<td>Evidence Based Dentistry: Professional Project</td>
<td>Compulsory</td>
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<tr>
<td><strong>Exit Award: Masters in Clinical Dentistry (Orthodontics and Dentofacial Orthopaedics)</strong></td>
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