

# SYLLABUS: CERTIFICATE IN ORTHODONTIC DENTAL NURSING



National  
Examining  
Board for  
Dental Nurses

## 1. GENERAL PROFESSIONAL CONTENT

### 1.1 MAINTAINING GOOD CLINICAL PRACTICE

Each learning outcome should be prefaced by: 'On completion of training the orthodontic dental nurse...'

Subject	Knowledge <i>.....should be able to describe:</i>	Skills <i>.....should be able to:</i>	Attitudes and Behaviours <i>.....should:</i>	Teaching and Learning method(s)	Assessment method(s)
<b>1.1.1 Health and Safety</b>	describe the requirements and legislation as it applies to staff and patient care i.e. - cross infection policy, - sharps policy, - waste disposal, - COSHH etc	apply knowledge of Health and Safety to the diagnosis and treatment of patients  demonstrate compliance with regulations whilst working in surgery.  apply knowledge of Health and Safety to the protection of staff  demonstrate knowledge of written practice protocols	recognise that health and safety rules are important for patient safety  recognise that health and safety rules are importance for staff safety  recognise penalties involved if rules are disregarded.	ST SDL CA	FA RoC
<b>1.1.2 Research using Information and Communication Technology</b>	the operation of information and communication technology to support acquisition of research material  the use of search engines and protocols  the importance of peer reviewed data as evidence, discriminating between evidence based websites	demonstrate use of information databases to access information  show discrimination in the utilization of information according to its reliability  apply knowledge of information and communication technology to the delivery of care to patients and acquisition of CPD	recognise the importance of appropriate research for self tuition and improved delivery of care to patients  recognise that care should be taken to discriminate on the quality of data retrieved from web based pages	ST SDL	FA RoC
<b>1.1.3 Clinical Governance</b>	describe the underlying principles of clinical governance and how it aids delivery of service to patients		recognise the importance of clinical governance to the quality of patient care and safety in practice	ST SDL	FA RoC

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	<i>.....should be able to describe:</i>	<i>.....should be able to:</i>	<i>.....should:</i>		
<b>1.1.4 Medico Legal Matters</b>	<p>the relevant legal statutes which apply to the practice of orthodontics and describes how it is regulated, i.e.</p> <ul style="list-style-type: none"> <li>- consent</li> <li>- malpractice</li> <li>- data protection</li> </ul> <p>how these regulations affect the dental nurse and the rest of the team</p>	<p>use knowledge gained such that regulations are obeyed and the dental nurse works to uphold ethical behaviour in and beyond the workplace</p>	<p>appreciate the importance of accurate completion of contemporaneous records</p> <p>recognise the importance of the various articles of legislation and the consequences of disobeying them</p> <p>recognise how legislation helps protect the vulnerable patient</p>	ST SDL	FA RoC
<b>1.1.5 Orthodontic Stock Control, Maintenance and Storage</b>	<p>the importance of proper stock control to ensure materials are in-date and correctly stored.</p> <p>hand piece and instrument maintenance</p> <p>how to sharpen instruments as required or when to replace them</p> <p>delivery unit maintenance</p> <p>the legal requirements for equipment servicing and maintenance</p>	<p>maintain stock control for efficient but economical running of practice</p> <p>sharpen instruments as required or replace</p> <p>arrange correct storage conditions for stock</p>	<p>recognise the importance of stocking with a complete range of materials in-date and correctly stored</p> <p>recognise the importance of correctly maintained and certified equipment</p> <p>recognise that instruments perform optimally when sharp and well maintained</p> <p>recognise the role of maintenance professionals in the certification of equipment</p>	ST SDL	FA RoC

**Key: Teaching and Learning methods**

ACI= Audit/Critical Incident Analysis, CA = Clinical Attachment, CBL= Case-Based Learning, SDL=Self-Directed Learning, ST=Structured Teaching

**Assessment methods**

FA= Formal Assessment, ROC= Record of Competence Incorporating: MSF = Multi-Source Feedback, PDP = Personal Development Portfolio, WBA = Workplace-Based Assessment

## 2. ORTHODONTIC RELATED CONTENT

### 2.1 GROWTH AND DEVELOPMENT

Each learning outcome should be prefaced by: 'On completion of training the orthodontic dental nurse...'

Subject	Knowledge <i>.....should be able to describe:</i>	Skills <i>.....should be able to:</i>	Attitudes and Behaviours <i>.....should:</i>	Teaching and Learning method(s)	Assessment method(s)
<b>2.1.1 Oral and Peri-oral Musculature</b>	relevant musculature actions, insertions and innervations, i.e. - muscles of mastication - muscles of facial expression - tongue - other peri-oral muscles	apply knowledge to help assessment and treatment of patients	recognise the harmonious action of these structures is essential to normal function	ST SDL CBL	FA RoC
<b>2.1.2 Growth and Development of the Jaws, Primary and Secondary Dentitions</b>	growth and development of maxilla and mandible and its relevance to malocclusion  normal eruption times and morphology of primary and permanent teeth	apply knowledge of normal development to recognise malocclusion in patients	recognise that abnormal jaw growth or tooth development can contribute to malocclusion  recognise that knowledge of normal anatomy is of importance in the recognition and diagnosis of malocclusion	ST SDL	FA RoC
<b>2.1.3 Normal and Abnormal Development of the Dentition</b>	both normal and abnormal dental development from birth to adulthood  normal dental morphology  the effect of genetic and environmental influences on the development of the dentition  the development of malocclusion including its variations and severity	identify the any specific developmental stage of the dentition  communicate findings to patients simply and clearly  describe factors responsible for developmental abnormalities	realise the importance of radiographic diagnosis  realise the need to communicate this information simply and clearly when asked  recognise that knowledge of normal and abnormal head and neck biology is important for an understanding of the delivery of orthodontic care  recognise the need to use appropriate terminology in the explanation of dental / developmental problems to patients	ST SDL CBL	FA RoC

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	<i>.....should be able to describe:</i>	<i>.....should be able to:</i>	<i>.....should:</i>		
<b>2.1.4 Aetiology of Malocclusion</b>	likely causes of malocclusion  genetic and environmental influences, i.e. - skeletal factors - soft tissue factors - local / dental factors	demonstrate an understanding of the diagnosis in relation to the clinical findings	appreciate the reasons for treatment plans provided  recognise aetiology in relationship to malocclusion  recognise the role of aetiology in the treatment plan formulated	ST SDL CBL	FA RoC
<b>2.1.5 Tooth Movement</b>	the normal exfoliation and eruption of teeth  the histology of tooth movement  the resorption of dental structures	apply histological knowledge to an appreciation of the normal growth, eruption and loss of teeth	recognise the importance of the histological process during orthodontic tooth movement  recognise need for explanation of treatment options including risks of treatment in light of histological knowledge	ST SDL	FA

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## 2.2 ASSESSMENT AND DIAGNOSIS

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<b>2.2.1 Diagnostic Procedures</b>	<p>the clinical assessment and diagnosis of malocclusion.</p> <ul style="list-style-type: none"> <li>- clinical assessment</li> <li>- radiographic assessment</li> <li>- study model analysis</li> <li>- clinical photography</li> <li>- other techniques (e.g. Kesling set up)</li> </ul>	<p>assist in the collection of all records pertinent to the making of diagnosis</p> <p>understand why relevant diagnosis has been made</p> <p>produce standard view photographs of patients</p>	<p>recognise the importance of systematic and thorough diagnosis</p> <p>recognise the need for clear explanation of malocclusion to patient</p>	ST SDL CBL	FA RoC
<b>2.2.2 Radiological Imaging Techniques</b>	<p>the range and uses of the different radiographic views used in orthodontic practice</p> <p>radiation protection and ALARP guidelines</p> <p>likely causes of faulty images</p> <p>the basic principles of cephalometry including radiological landmarks</p>	<p>demonstrate cephalometric analysis by both tracing and digitization</p> <p>to apply knowledge to understanding of diagnosis</p> <p>to account for faults in imaging</p>	<p>understand the importance of good quality radiographs in diagnostic planning.</p> <p>understand the need for low radiation exposure for patient and staff safety</p>	ST SDL CBL	FA RoC
<b>2.2.3 Laboratory Skills</b>	<p>the production of study models</p> <p>the laboratory stages require for appliance production</p> <p>the need for clear communication with the laboratory</p>	<p>cast, base and trim study models</p> <p>demonstrate ability to complete laboratory forms.</p>	<p>recognise the importance of good quality laboratory work</p> <p>recognise the importance of clear, accurate communication to the laboratory</p>	ST CA	FA RoC
<b>2.2.4 Orthodontic Clinical Governance</b>	<p>relevant indices</p> <ul style="list-style-type: none"> <li>- IOTN</li> <li>- PAR</li> </ul>	<p>demonstrate the use of IOTN and PAR on study models</p>	<p>recognise the importance of the assessment of outcomes</p>	ST SDL CA	FA RoC

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## 2.3 ORTHODONTIC INTERVENTIONS

Each learning outcome should be prefaced by: 'On completion of training the orthodontic dental nurse...'

Subject	Knowledge <i>.....should be able to describe:</i>	Skills <i>.....should be able to:</i>	Attitudes and Behaviours <i>.....should:</i>	Teaching and Learning method(s)	Assessment method(s)
<b>2.3.1 Removable Appliances</b>	<p>the mode of action of removable appliances including aligners</p> <p>the different types and uses of appliances</p> <p>the advantages and disadvantages of removable appliances</p> <p>the chairside procedures required to produce a working model</p> <p>the materials used to construct removable appliances</p> <p>the components and design of removable appliances</p> <p>how these components are combined to produce an effective appliance</p>	<p>assist during the fitting and activation of these appliances</p> <p>assist during the adjustment of these appliances</p> <p>give instructions to patient about care of appliance</p> <p>identify the instruments and equipment used during the construction of appliances and describe and demonstrate their use during the procedure</p> <p>identify the level of damages to appliances and their potential for repair</p>	<p>recognise importance of sound removable appliance design</p>	<p>ST SDL</p>	<p>FA RoC</p>

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	<i>.....should be able to describe:</i>	<i>.....should be able to:</i>	<i>.....should:</i>		
<b>2.3.2 Fixed Appliances</b>	<p>the mode of action of fixed appliances</p> <p>the various types of fixed appliance</p> <p>the construction of fixed appliances</p> <p>the advantages and disadvantages of fixed appliances</p> <p>the scope and limitations of fixed appliances</p> <p>Indications and contraindications for their use</p> <p>the materials used to construct fixed appliances</p> <p>pre adjusted edgewise appliances and other appliance systems</p> <p>anchorage with fixed appliances including temporary anchorage devices, the use of ligatures, elastics and auxiliaries</p>	<p>select correct materials on demand from the operator</p> <p>assist in the placement, bonding and cementation of fixed orthodontic appliances</p> <p>assist during the adjustment of these appliances</p> <p>assist during the removal of these appliances</p> <p>give instructions to patient about care of appliance</p>	<p>recognise why fixed appliances are used in the treatment of specific malocclusions</p>	<p>ST</p> <p>SDL</p> <p>CA</p>	<p>FA</p> <p>RoC</p>
<b>2.3.3 Retention Appliances</b>	<p>the various types of retainer</p> <p>the management of post-treatment orthodontic retention</p> <p>the reasons for retention and consequences if not carried out</p>	<p>assist at fitting both fixed and removable retainers</p> <p>give instructions to patient about care of appliance</p>	<p>be aware of consequences when appliance is not worn and communicate this to patient</p> <p>recognise the need for post treatment retention</p> <p>recognise the need to explain post treatment retention as part of comprehensive treatment plan</p>	<p>ST</p> <p>SDL</p> <p>CA</p>	<p>FA</p> <p>RoC</p>

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<b>2.3.4 Functional Appliances</b>	<p>the main types of functional appliances in common use</p> <p>the indications and contraindications for the use of functional appliances</p> <p>the movements achievable with these appliances</p> <p>the scope and limitations of functional appliances</p> <p>how functional appliances are integrated with fixed</p>	<p>assist during the fitting and activation of these appliances</p> <p>assist during the adjustment of these appliances</p> <p>give instructions to patient about care of appliance</p>	<p>recognise the importance of timing with these appliances</p>	<p>ST SDL CA</p>	<p>FA RoC</p>
<b>2.3.5 Extra Oral Appliances</b>	<p>the use of extra-oral anchorage and traction</p> <p>the basic retraction and protraction headgears</p> <p>the indications and contraindications of headgear</p> <p>force levels</p> <p>headgear safety issues</p>	<p>assist during the fitting and activation of these appliances</p> <p>assist during the adjustment of these appliances</p> <p>give instructions to patient about care of appliance</p>	<p>appreciate reasons why these appliances are prescribed</p> <p>realise they are being prescribed less often</p> <p>appreciate that they are a significant safety hazard to patient</p> <p>recognise the risks of treatment with headgear and detail procedures to limit the chance of hurt to patient</p> <p>recognise need for full explanation of treatment options including risks of treatment</p>	<p>ST SDL</p>	<p>FA</p>

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	<i>.....should be able to describe:</i>	<i>.....should be able to:</i>	<i>.....should:</i>		
<b>2.3.6</b> <b>Orthodontics as adjunct to Oral surgery, Restorative Dentistry and Periodontology</b>	<p>the treatment options for the management of impacted and unerupted teeth through a combination of minor oral surgery and orthodontics</p> <p>the need for orthodontic treatment as adjunct to occlusal rehabilitation including implantology, aesthetic restoration of dentition including previously extracted teeth or hypodontia</p> <p>the management options for encouraging tooth eruption</p> <p>the procedure of fraenectomy.</p>	<p>assist in the management of unerupted or impacted teeth</p> <p>assist in management and referral of complex cases involving other disciplines</p> <p>assist in fraenectomy</p>	<p>recognise the need to communicate the management options for unerupted / impacted teeth</p> <p>recognise need for complex cases to be referred to appropriate specialist</p> <p>recognise the need to advise parents on the need for and timing of fraenectomy</p>	ST SDL CBL	FA RoC
<b>2.3.7</b> <b>Orthodontic Materials and Biomechanics</b>	<p>the range of materials used in Orthodontic practice and their properties</p> <p>common arch wire sequences and their justification</p> <p>the way in which arch wires achieve their tooth movements</p> <p>the wide range of ingredients used in orthodontic instruments, materials and instruments</p>	<p>select correct materials for clinical situations when asked for by operator</p>	<p>understand why incorrect materials can cause undesired tooth movements</p> <p>recognise the importance of normal arch wire sequences</p> <p>recognise normal pace of treatment</p> <p>recognise the importance of iatrogenic effects of orthodontics</p> <p>recognise the need for explanation of treatment progress</p>	ST SDL CA	FA

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	<i>.....should be able to describe:</i>	<i>.....should be able to:</i>	<i>.....should:</i>		
<b>2.3.8</b> <b>The Iatrogenic Effects of Orthodontic Treatment</b>	<p>the risks relevant to the treatment of patients and includes:</p> <ul style="list-style-type: none"> <li>- root resorption</li> <li>- effects on the enamel</li> <li>- effects on the periodontium</li> <li>- effects on the pulp</li> </ul> <p>adverse effects on the soft tissues including headgear injuries and allergic reactions</p> <p>influences on the temporo-mandibular joint</p> <p>the risk factors in causing iatrogenic damage</p> <p>the diagnosis of iatrogenic injury</p> <p>how iatrogenic damage may be minimised and treating damage if it occurs</p>	<p>communicate the risks of orthodontic treatment to a patient</p> <p>assist in the recognition of damage</p>	<p>recognise the importance of detailing risks when giving informed consent</p> <p>realise that there is a balance between risks and benefit</p>	<p>ST SDL CA</p>	<p>FA RoC</p>

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	<i>.....should be able to describe:</i>	<i>.....should be able to:</i>	<i>.....should:</i>		
<b>2.3.9 Oral Health Education</b>	<p>the benefits of setting SMART objectives for oral health sessions</p> <p>the current evidence-based advice required before, during and after orthodontic treatment</p> <p>methods of providing oral health education</p> <p>the use of visual aids to support oral health education</p> <p>the effects of poor oral health on the oral cavity</p> <p>the effects of poor oral health on general health</p> <p>the oral health risks orthodontic treatment places on the oral cavity</p> <p>the role of effective communication in oral health promotion</p> <p>the benefits of using diet diaries</p>	<p>provide oral health advice relevant to the patients individual needs</p> <p>communicate clearly and effectively with patients to assist with oral health improvements required using verbal and non-verbal communication</p> <p>demonstrate effective methods of improving tooth brushing</p>	<p>recognise the risks of poor oral health on the orthodontic patient</p> <p>recognise and understand social factors that could affect a person's performance with their oral health</p> <p>maintain a professional attitude when providing oral health advice</p> <p>Encourage and support patients when motivation and skills are low</p>	<p>ST CBL SDL CA</p>	<p>FA ROC</p>

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