

## DENTAL COUNCIL

### Statutory Examination

The Dentists Act 1985 requires that in order to practice dentistry in the Republic of Ireland a dentist must be registered with the Dental Council of Ireland.

Registration is permitted to those individuals who hold a dental degree (BDS [NUI]), B Dent Sc [DU] from an Irish university and to those who hold a degree in dentistry awarded by a university within the European Union and who are entitled to have that qualification recognised under the provisions of 2005/36/EC

Those individuals who hold dental degrees from universities not in the EU must apply to sit and must pass the statutory examination of the Dental Council before their name can be entered on the Dental Register in Ireland.

There are two parts to the examination and a candidate must pass Part I (Applied Clinical Science) before they can proceed to Part II (Clinical Dentistry –Theory and Practice).

The examination is designed to be an assessment of knowledge, clinical skills and understanding at the standard expected of a graduating student from a dental school within Ireland.

For Part I of the examination, candidates will be expected to have a sound basic knowledge and understanding of Physiology, Biochemistry, Pharmacology and applied Anatomy the broad principles of which are laid down in the attached syllabus. The candidates will also be expected to pass a practical examination in operative techniques.

For Part II of the examination candidates will be expected to demonstrate the application of knowledge to clinical practice. Candidates can expect to be assessed in subjects such as:

Anaesthesiology, Applied Biomaterials, Dental Pathology, Dental Public Health, Dental Therapeutics, Endodontology, Fixed and Removable Prosthodontics, Gerodontology, Law and Ethics, Operative Dentistry, Oral Medicine, Oral Pathology, Oral Radiology, Oral Surgery, Orthodontics, Paediatric Dentistry, Periodontology, Preventive Dentistry,

These subjects will be assessed in written and clinical examinations

**The syllabus and learning outcomes are not intended to be prescriptive but to give candidates a comprehensive guide to the material which may be included in the examination. It is not intended to be exhaustive or to exclude other topics which are of similar relevance.**

## Learning Outcomes

### Domain I: PROFESSIONALISM

#### Major Competences:

**Professional behaviour:** A dentist must have contemporary knowledge and understanding of the broader issues of dental practice, be competent in a wide range of skills, including research, investigative, analytical, problem-solving, planning, communication, presentation and team skills and understand their relevance in dental practice.

**Ethics and Jurisprudence:** The dentist must have knowledge and understanding of the moral and ethical responsibilities involved in the provision of care to individual patients and to populations, and has knowledge of current laws applicable to the practice of dentistry.

#### Learning Outcomes:

The dentist must

- Display appropriate caring behaviour to patients and members of the dental team at all times
- Manage and maintain a safe working environment for staff and patients at all times
- Demonstrate a knowledge of the regulatory functions of the Dental Council and its guidelines for good practice
- Demonstrate a knowledge of the ethical principles relevant to dentistry and be competent at practising with personal and professional integrity, honesty and trustworthiness
- Select treatment options that are sensitive to each patient's individual needs, goals and values, compatible with contemporary therapy, and congruent with a comprehensive oral health care philosophy
- Acknowledge that the patient is the centre of care and that all interactions, including diagnosis, treatment planning and treatment, must have the patient's best interests as the focus of that care.

**Domain II: COMMUNICATION AND INTERPERSONAL SKILLS**

**Major Competence:**

The dentist **must be competent in communicating** effectively with patients, their families and associates, and with other health professionals involved in their care.

**Learning Outcomes:**

**The dentist must**

- Establish a patient-dentist relationship that allows the effective delivery of dental treatment, including communicating to patients the knowledge and understanding of treatment proposed or advice given
- Share information and professional knowledge with both the patient and other professionals, verbally and in writing, including being able to negotiate and give and receive constructive feedback
- Identify patient expectations and goals for dental care

**Domain III: KNOWLEDGE BASE, INFORMATION HANDLING & CRITICAL THINKING**

**Major Competence:**

A dentist must have sufficient knowledge and understanding of the **basic biomedical, technical and clinical sciences** to understand the normal and pathological conditions relevant to dentistry and be competent to apply this information to clinical situations.

**Learning Outcomes:**

**The dentist must demonstrate**

- An understanding of the scientific basis of dentistry, including the relevant biomedical sciences, the mechanisms of knowledge acquisition, scientific method and evaluation of evidence
- A knowledge of disease processes such as infection, inflammation, disorders of the immune system, degeneration, neoplasia, metabolic disturbances and genetic disorders
- A knowledge of anatomy, physiology and biomedical sciences relevant to dentistry
- A knowledge of the aetiology and processes of oral diseases
- A knowledge of the scientific principles of sterilisation, disinfection and antisepsis
- A knowledge of the sciences that underpin the use of dental biomaterials
- A knowledge of those aspects of biomaterials safety that relate to dentistry
- A knowledge of the limitations of dental biomaterials
- A knowledge and understanding of biomedical sciences or oral physiology and craniofacial, oral and dental anatomy in the management of patients
- A knowledge of the causes and effects of oral disease needed for their prevention, diagnosis and management
- A knowledge of the hazards of ionising radiation and regulations relating to them, including radiation protection and dose reduction
- A knowledge of the pathological features and dental relevance of common disorders of the major organ systems

**Domain IV: CLINICAL INFORMATION GATHERING**

**Major Competence:**

A dentist must be competent in **obtaining and recording a comprehensive medical history and a history of the patient's oral and dental state**. This will include biological, medical, psychological and social information in order to evaluate the oral condition in patients of all ages. The dentist will, furthermore, be competent in performing **an appropriate physical examination**, interpreting the findings and organising further investigations and interpreting their results.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Identify the chief complaint of the patient and obtain a history of present illness
- Perform a dietary analysis
- Produce a patient record and maintain accurate patient treatment record entries
- Identify abnormal patient behaviour.
- Initiate an appropriate written medical consultation or referral in order to clarify a question related to the patient's systemic health.
- Perform an extra-oral and intraoral examination appropriate for the patient, including assessment of vital signs, and record those findings.
- Complete and chart a comprehensive dental, periodontal and mucosal examination.
- Take radiographs of relevance to dental practice, interpreting and reporting the results and demonstrate a knowledge of other forms of medical imaging that are of relevance to dentistry.
- Manage ionising radiation.
- Be familiar with the principles that underlie dental radiographic techniques.
- Demonstrate a knowledge of appropriate clinical laboratory and other diagnostic procedures and tests, understand their diagnostic reliability and validity, and interpret their results.
- Produce diagnostic casts, mounted and with interocclusal records.
- Assess sensory and motor function of the mouth and jaws.
- Assess salivary function.
- Assess oro-facial pain.
- Assess facial form and deviations from the normal.
- Recognize signs of patient abuse and neglect and know how report as required to appropriate legal authorities

## **Domain V: DIAGNOSIS AND TREATMENT PLANNING**

### **Major Competence:**

A dentist must be competent in **decision-making, clinical reasoning and judgement** in order to develop a **differential, provisional or definitive diagnosis** by interpreting and correlating findings from the history, clinical and radiographic examination and other diagnostic tests. A dentist must be competent at forming a diagnosis and treatment plan for patients of all ages but should recognise those treatments that are beyond his/her skills and need to be **referred to a specialist**.

### **Learning Outcomes:**

#### **The dentist must demonstrate an ability to**

- Obtain informed consent e.g. for operative procedures
- Recognize the presence of systemic disease and know how the disease and its treatment affect the delivery of dental care.
- Identifying the location, extent and degree of activity of dental caries and tooth wear.
- Diagnose abnormalities in dental or periodontal anatomic form that compromise periodontal health, function or aesthetics and identify conditions, which require management.
- Distinguish the difference between pulpal health and disease and identify conditions that require management.
- Recognize the clinical features of oral mucosal diseases or disorders, including oral neoplasia, and identify conditions that require management.
- Recognize maxillofacial problems, the clinical characteristics of acute and chronic craniofacial pain of somatic, neurogenic and psychogenic origin, and identifying and diagnosing conditions that require management by the dentist or other health providers.
- Recognize patient behaviour contributing to orofacial problems, and identifying conditions that require diagnosis, prevention and management.
- Determine a patient's aesthetic requirements and determine the degree to which those requirements can be met.
- Carry out an orthodontic assessment.
- Demonstrate a knowledge of the diagnosis of temporomandibular joint disorders.
- Demonstrate a knowledge of the developing child, including the oral cavity and dentitions, and how this impacts on the delivery of oral care
- Demonstrate a knowledge of the categories of special needs patients and how this impacts on the delivery of oral health care
- Demonstrate an understanding of ageing in societal, systemic and oral terms.
- Demonstrate how an understanding of ageing impacts on the delivery of oral health care.

**Domain VI: ESTABLISHMENT AND MAINTAINING ORAL HEALTH**

**Major Competence:**

The graduating dentist must be competent to **educate patients and manage comprehensive primary care** for patients of all ages; that emphasises **current concepts of prevention and treatment of oral disease**; and supports the maintenance of systemic and oral health.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Demonstrate a knowledge of the concepts of minimal intervention and of providing a comprehensive approach to oral care.
- Apply evidence-based treatment
- Deliver oral hygiene instruction, topical fluoride therapy and fissure sealing.
- Educate patients concerning the aetiology and prevention of oral disease and encourage them to assume responsibility for their oral health.
- Prescribe and monitor the effects of appropriate pharmaceutical agents including the chemical control of dental plaque.
- Provide dietary counselling and nutritional education relevant to oral health.
- Develop strategies to predict, prevent and correct deficiencies in patient's oral hygiene regimens and provide patients with strategies to control adverse oral habits.
- Evaluate all treatment results and provide or recommend additional action and maintenance.
- Perform preventive and restorative procedures that preserve tooth structure, prevent hard tissue disease and promote soft tissue health.
- Deliver oral health care to all population groups including children, special needs groups, adults and the elderly.

**Oral Medicine/Oral Pathology** The graduating dentist must be competent in the prevention, diagnosis and management of potentially malignant and malignant lesions and conditions of the oral mucosa. On graduation, the dentist must be competent to diagnose and manage common oral mucosal diseases and disorders in patients of all ages.

**Learning Outcomes:**

**The dentist must an ability to**

- Counsel patients regarding the nature and severity of non-life-threatening oral mucosal and salivary diseases and disorders, providing the patient with realistic options and expectations of management.
- Perform limited soft tissue diagnostic procedures, including biopsy in the mouth.
- Participate in the diagnosis and proper referral of the patient with life-threatening oral mucosal diseases.

- Demonstrate a knowledge of management of acute oral infections
- Demonstrate a knowledge of the treatment of common oral medical disorders, both medical and surgical.
- Demonstrate a knowledge concerning the effects of tobacco on the oral mucosa and ways in which to help patients who wish to stop using tobacco

**Periodontology:** The new graduate in dentistry must be competent to manage periodontal diseases in patients of all ages.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Evaluate the periodontium, establishing a diagnosis and prognosis and formulating a treatment plan.
- Educate patients concerning the aetiology of periodontal disease and encourage them to assume responsibility for their oral health.
- Instruct patients in appropriate oral hygiene methods compatible with periodontal health.
- Carry out supragingival and subgingival scaling and root debridement, using both powered and manual instrumentation and in stain removal and prophylaxis.
- Demonstrate a knowledge of the secondary periodontal aetiological factors.
- Diagnose, explain and discuss the need for advanced periodontal surgical procedures and the proper method of referral for speciality care.
- Evaluate the results of periodontal treatment and establish and monitor a maintenance programme, including a discussion of risk factors.

**Operative Dentistry:** The new dentist must be competent to manage caries, tooth wear, dental trauma, pulp and peri-radicular disorders in patients of all ages.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Assess patient risk for caries and implement caries prevention strategies
- Assess patient risk for tooth wear and implement tooth wear prevention strategies
- Remove or otherwise treat carious tooth structure using techniques that maintain pulp vitality and restore the tooth to form, function and aesthetics with appropriate materials, preventing hard tissue disease and promoting soft tissue health.
- Perform therapeutic procedures designed to preserve the vitality of the dental pulp.
- Perform root canal treatment on uncomplicated single and uncomplicated multi-rooted teeth.
- Recognize indications for surgical and complicated non-surgical root canal therapy and take appropriate action.



**Surgical procedures:** On graduation, a dentist must be competent to treat and manage conditions requiring simple reparative surgical procedures of the hard and soft tissues in patients of all ages, including the extraction of teeth, the removal of roots when necessary and the performance of minor soft tissue surgery, and to apply appropriate pharmaceutical agents to support treatment.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Perform uncomplicated extraction of erupted teeth.
- Demonstrate a knowledge of the management of trauma in deciduous and permanent dentitions and be familiar with the surgical and non-surgical aspects of the management of maxillofacial trauma.
- Undertake the removal of roots where necessary.
- Perform uncomplicated pre-prosthetic surgical procedures.
- Manage and treat common intra-operative and postoperative surgical complications.
- Describe the indications and contraindications, principles and techniques of surgical placement of osseointegrated implant fixtures.

**Pain and anxiety management:** On graduation, a dentist must be competent to employ appropriate techniques to manage orofacial pain, discomfort and psychological distress.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Administer infiltration and block local anaesthesia in the oral cavity for restorative and surgical procedures or other treatment, as needed, for orofacial pain management.
- Be competent at diagnosing orofacial pain, treating it as appropriate or referring the patient to relevant specialists.
- Demonstrate a knowledge of inhalation and intravenous conscious sedation techniques for dental procedures.
- Select and prescribe drugs for the management of preoperative, operative and postoperative pain and anxiety.
- Identify the origins and continuation of dental fear and anxiety and manage this fear and anxiety with behavioural techniques.

**Restorative/Prosthodontic management:**

Restorative dentistry is concerned with the management of the plaque-related diseases (dental caries and periodontal diseases), tooth wear and tooth loss. Management includes preventive, non-operative care as well as the restoration of teeth using the well-established techniques of conservative dentistry, including crowns and endodontics, the replacement of teeth by means of prostheses, and the treatment and maintenance of the supporting structures of the teeth by the procedures of periodontology. In restorative dentistry students should have continuous responsibility for the care of a number of adults in order to assess their overall needs, the efficacy of preventive measures, their behaviour, management and long-term success or failure of restorative treatment. Students should learn to manage adults requiring emergency care, carry out diagnostic procedures in such circumstances, formulate treatment plans and relate them to comprehensive dental care. All aspects of restorative dentistry may be required for medically compromised patients and those with other special needs. In its advanced forms restorative dentistry can involve extensive occlusal rehabilitation, sometimes requiring the use of dental implants. Students should appreciate that these forms of treatment may be delivered by specialists as secondary or tertiary care. They should be aware of when to refer such cases, understand the principles involved in their management and observe such treatment being carried out.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Design indirect restorations including anterior and posterior crowns, post crowns, simple bridges, complete and partial dentures and undertake some of these procedures as is relevant.
- Demonstrate a knowledge and experience of the design and laboratory procedure used in the production of crowns, bridges, partial and complete dentures and be able to make appropriate chair-side adjustment to these restorations.
- Provide indirect restorations including anterior and posterior crowns, post crowns, simple bridges, complete and partial prostheses
- Describe for patients the principles and techniques of aesthetic treatments including differences between patient expectations and achievable results.
- Describe for patients the principles and techniques involved in the use of osseointegrated implants for restorations.
- Demonstrate a knowledge of the potential and limitations of dental technological procedures in restoring the dentition.

**Orthodontics:** On graduation, a dentist must be competent at managing limited developmental or acquired occlusal abnormalities of the primary, mixed and permanent dentition.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Demonstrate a knowledge of the principles of treatment of dento-facial anomalies including the common orthodontic/maxillofacial procedures involved.
- Diagnose orthodontic treatment need and be familiar with contemporary treatment techniques.
- Design, insert and adjust space maintainers and design, insert and adjust active removable appliances to move a single tooth or correct a crossbite.
- Manage appropriately all forms of orthodontic emergency including referral when necessary.
- Identify oral habits that may exacerbate malocclusion, and prevent their consequences through patient education and training and appliance therapy, as needed.

**Emergency care:** The graduate dentist must be competent effectively to prevent and manage the majority of medical and dental emergency situations encountered in the general practice of dentistry.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Develop and implement an effective strategy for preventing dental and medical emergencies in the dental surgery and establish policies for the management of such emergencies should they occur.
- Carry out resuscitation techniques and immediate appropriate management of cardiac arrest, anaphylactic reaction, upper respiratory obstruction, collapse, vasovagal attack, epileptic fit, haemorrhage, inhalation or ingestion of foreign bodies, hypoglycaemia, and diabetic coma or other medical emergencies that may occur in the course of dental treatment.
- Identify and manage dental emergencies including those of pulpal, periodontal or traumatic origin.
- Identify and promptly refer dental or medical emergencies, which are beyond the scope of management by a general dentist.

**Domain VII: HEALTH PROMOTION**

**Major Competence:**

The new dentist must be competent at improving the oral health of individuals, families and groups in the community.

**Learning Outcomes:**

**The dentist must demonstrate an ability to**

- Apply the principles of health promotion and disease prevention.
- Demonstrate a knowledge of the organisation and provision of healthcare in the community and in the hospital service.
- Demonstrate an understanding the complex interactions between oral health, nutrition, general health, drugs and diseases that can have an impact on oral health care and oral diseases.
- Demonstrate a knowledge of the prevalence of certain dental conditions in the country.
- Demonstrate a knowledge of the importance of community-based preventive measures.
- Demonstrate a knowledge of the social, cultural and environmental factors, which contribute, to health or illness.