



C/O Dr Farayi Moyana's Dental & Orthodontic Surgery

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DIPLoma IN DENTAL SURGERY ASSISTING (DipDSA)
SYLLABUS

Entry Requirements:

At least 18 years of age, Minimum 5 'O' level passes in English language, Mathematics or Statistics or Science and any other 3 other passes. Proven on the job experience or other tertiary qualifications may be considered in place of full 5 'O' passes. Candidates with 'A' level passes or other tertiary qualifications have an added advantage.

Programme Duration: 15 to 18 months

Compulsory: International Computer Driver's License (ICDL) Level 4 or equivalent and Basic First Aid training or Equivalent (Student to provide proof of accomplishment of these by the time of final examination).

Major focus of Knowledge, Attitude and Skills: Infection control, Radiology and General Dental Assisting.

THEME CODE
DSA 18001

TEACHING & LEARNING THEMES/TOPICS

A) Introduction to the Dental Profession

- Review dental disease and dentistry from ancient times
- Name the individuals who had a great impact on the profession of dentistry and their contributions.
- Identify and explain the specialities of dentistry
- Name explain the functions and training of members of the dental team.

B) Introduction to Psychology, Communication, and Multi-cultural dimensions

C) Human Anatomy, Physiology and pathology

- Body structure and functions
- Systems of the body: Osteology

DSA 18002

Oral Anatomy & Pathology

- i. Tooth anatomy (parts of a tooth)
- ii. Tooth numbering (FDI system and others)
- iii. Name and identify the location of each tooth surface
- iv. Distinguish between primary, mixed and permanent dentitions.
- v. Briefly explain the cause, process and consequences of: Dental caries, Gingivitis, periodontitis, Jaw pathologies, oral lesions

DSA 18003

DENTAL ASSISTING: PRACTICE MANAGEMENT

- I. Demonstrate how to do Dental charting
 - II. Demonstrate how to do Dental Tray set up (fillings, extractions, rct, etc)
 - III. Demonstrate how to do Taking dictation from the dentist
 - IV. Demonstrate how to do History taking
 - V. Demonstrate how to do Vital signs (pulse, temperature, blood pressure)
 - VI. Demonstrate ability to complete a medical aid claim form
 - VII. Demonstrate understanding and application of the Health insurance tariffs
- Dental Hand Instruments**
- I. List the examination, cutting and restorative instruments and their uses
 - II. Describe the use of preset trays and tubs in dentistry
 - III. Discuss the theory of placing an instrument in a specific sequence
 - IV. Maintenance and sterilization techniques of rotary instruments
- Dental Hand pieces and Accessories**
- I. Describe rotary instruments (high-speed and low-speed hand pieces) and how they are used
 - II. List the parts of a bur, composition, shape, and uses (cutting, finishing and polishing accessories)
- Moisture Control**
- I. List isolation techniques to decrease moisture during a dental procedure
 - II. Describe the two types of oral evacuation systems used in dentistry (high-volume and low-volume suction)
 - III. Describe the dental (rubber) dam, equipment and its role in moisture control

DSA 18004

INFECTION CONTROL

- a) Microbiology
 - i. Discuss pathogens of importance in the dental practice, e.g hepatitis, TB, herpes, HIV/AIDS etc

- ii. Discuss types of pathogens that are relevant to dentists or in the dental practice
- b) Disease transmission and infection control
 - i. Demonstrate understanding of chain of infection control measures in the dental practice
 - ii. List standard precautions for diseases transition
 - iii. Name the categories of risk for occupational exposure, occupational health and safety
 - iv. Explain the pre-and post-exposure protocols for an exposure incident
 - v. Describe proper hand hygiene for oral health care workers
 - vi. Advantages of alcohol-based hand rubs
 - vii. Discuss the types of PPE needed for Dental Assistants
 - viii. Explain the importance of various types of personal protective equipment
 - ix. Describe the various types of gloves used in an oral health care facility and the in the theatre
 - x. Name and describe the proper handling and disposal methods for each type of waste generated in dentistry
 - xi. Explain the precautions necessary when treating an active tuberculosis patient
 - xii. Explain Spaulding's classification of instruments surface as it relates to sterilization and
 - c) Fundamentals and procedures for Disinfection
 - i. Explain why dental treatment-room surfaces need barriers or disinfection
 - ii. List the types of surfaces in the oral health care facility typically covered with barriers
 - iii. Describe the two methods to deal with surface contamination
 - iv. What is the difference between disinfection and sterilization?
 - v. What is the difference between a disinfectant and an antiseptic ?
 - vi. List chemical products used for intermediate-level and low-level surface disinfection, and explain the advantages and disadvantages of each
 - vii. List chemical products used for intermediate-level and low-level surface disinfection, and explain the advantages and disadvantages of each
 - viii. Illustrate the process of cleaning and disinfecting all surfaces in a treatment room
 - ix. Explain the processes of pre-cleaning contaminated dental instruments
 - x. Discuss the precautions when using chemical sterilants/disinfectants
- d) Instrument Processing and Sterilization
 - i. List and explain steps in processing dental instruments
 - ii. List and explain the three most common methods of heat sterilization and the advantages and disadvantages of each
 - iii. what are the precautions necessary when packaging materials for sterilization
 - iv. What are the steps in cleaning and sterilization of the high-speed dental hand piece.
 - v. Explain the safety precautions necessary when operating an ultrasonic cleaner
 - vi. Describe the different types of sterilizers

- e) Chemical and Waste Management
 - i. Identify types of regulated waste generated in an oral health care facility
 - ii. Identify types of toxic waste generated in an oral health care facility
 - iii. Describe how to package regulated waste for transport

DSA 18005**DENTAL PRACTICE CLINICAL MANAGEMENT PART 1**

- I. Identify the purpose of a patient's record
- II. Discuss the importance of the patient's medical/dental health history and its relevance to dental treatment and medication
- III. Discuss the role of the Dental Assistant in the clinical examination
- IV. Differentiate between an anatomic and a geometric diagram (box chart) for charting
- V. Discuss the importance of a treatment plan

DSA 18006**DENTAL PRACTICE CLINICAL MANAGEMENT PART II**

- I. Discuss the diseases and conditions of importance in the medical history related to dentistry
- II. Discuss the importance of the patient's medication and its relevance to dental treatment Cardiovascular – myocardial infarction, angina, hypertension, congestive heart failure, rheumatic fever, infective endocarditis (pace maker), Lung conditions – asthma, TB, Neurological conditions – epilepsy, mental retardation, stroke, cerebral palsy, sensory impaired (blind and deaf), Diabetes, Pregnancy, Infectious diseases (hepatitis, HIV/Aids), Young and geriatric patients
- III. Describe the common signs and symptoms of an emergency and how to recognize them List the basic items that must be included in an emergency kit
- IV. Discuss the use of a defibrillator in an emergency
- V. Describe how to respond to specific emergencies

COMMON DENTAL EMERGENCIES AND THEIR MANAGEMENT

- I. Obstructive airway
- II. Respiratory problems (hyperventilation/asthmatic patient), Cardiac conditions (hypertension), CVA/stroke,
- III. Epilepsy
- IV. Fainting/syncope
- V. Local and systemic allergic reactions
- VI. First Aid course

DSA 18007**DENTAL MATERIALS FOR RESTORATIVE DENTISTRY****Restoration and Aesthetic Dental Materials**

- I. List the properties of dental materials and how they affect their application
- II. Describe the properties of all restorative materials (amalgam, composite resin, glass ionomers and temporary materials) and its application in restoring teeth
Dental Liners, Bases, and Bonding Systems
- I. Discuss how the sensitivity of a tooth determines what type of dental material is selected for a procedure
- II. Discuss how and why cavity liners, varnishes, dentin sealers, dental bases are used in restoring tooth structure
- III. Describe the etching and bonding process of a tooth and related materials

Dental Cements

Describe luting cements and differentiate between permanent and temporary cements

General Dentistry

- I. Discuss the differences in assisting with an amalgam versus a composite restoration
- II. Describe the need for placement of an intermediate restoration (temporary)
- III. Describe the procedure of composite veneers
Matrix Systems for Restorative Dentistry
- I. Describe the type of matrices used for anterior and posterior restorations
- II. Discuss the purpose and use of a wedge
- III. Discuss alternative methods of matrix systems used in restorative dentistry

DSA 18008**COMMUNICATION, MARKETING AND PRACTICE MANAGEMENT**

- I. Marketing skills for employment seeking
- II. Social Media Marketing
- III. Dental chairside marketing
- IV. Reception marketing
- V. Telephone manners
- VI. Team building
- VII. Information Technology Management
- VIII. Communicate with patients in respect of reception, appointment scheduling, fees and other enquiries related to activities performed in the dental environment
- IX. Manage patient appointments, patient records and billing
- X. Manage the required registers in the dental environment, which includes, but is not limited to dental imaging, stock control, waste management, patient statistics, patient records and referrals

- XI. Liaise with stakeholders involved in patient care, which includes, but is not limited to third party funders, other oral health practitioners, dental laboratories and dental suppliers

DSA 18009

BIOMEDICAL ETHICS, PUBLIC HEALTH AND HEALTH LAW

Ethical Considerations

- I. Brief history of Bioethics and patient protection
- II. Brief explanation of Ethical principles and moral theories
- III. Define ethical behavior
 - Confidentiality
 - Respect for the profession
 - Respect for fellow staff and dentist
 - Maintain skills and knowledge
 - Refrain from services prohibited by state law

Basic facts about Health and the LAW

- Organization of Health services in Zimbabwe
- Health Professions Authority and Health Councils (MDPCZ, Pharmacy Council, Nursing Council etc)
- Definitions of law, civil and criminal law, litigation, types of torts, contract law, fraud, malpractice, advertising
- Demonstrate basic understanding of Health laws and regulations e.g. Public Health Act, Health Professions Council Act, Medical Services Act etc

Risk Management Considerations

A. Define risk management

B. List seven elements of an informed consent as follows:

- i. Description of treatment
- ii. Alternative of treatment
- iii. Risk of complications
- iv. Prognosis
- v. Cost
- vi. Time needed to complete
- vii. Age and mental capacity of patient

C. Explain three ways to obtain informed consent

- i. Implied consent
- ii. Verbal consent
- iii. Written consent

D. Describe thirteen ways to manage risk

- i. Informed consent
- ii. Review medical history
- iii. Emergency preparedness
- iv. Clear/realistic patient expectations
- v. Maintain high level of skills
- vi. Adequate patient safety equipment

- vii. Disclosure of unexpected events
- viii. Comprehensive/accurate treatment record
- ix. Never criticize previous treatment
- x. Protect privacy of patient
- xi. Document privacy of patient
- xii. Identify responsibility/obligations in the dentist/patient relationship
- xiii. How to respond to a threat of malpractice suit

E. List Six Guidelines for Managing Chart Entries as a Legal Record

- i. Keep a separate chart for each patient
- ii. Correct errors properly
- iii. Make chart entry during patient visit, do not rely on memory
- iv. Write legibly, ink date and initial each entry
- v. The entry should be complete
- vi. Never change or alter the chart after a problem arises

DSA 18010

RADIOLOGY

Foundations of Radiography, Radiographic Equipment, and Radiation Safety

- I. Discovery of x-rays: X-ray production,
- II. Types of radiation
- III. Discuss the effects of radiation exposure on the human body
- IV. X-ray development and image formation
- V. Describe the methods of protecting the public, patient and oral health care workers from excess radiation

Dental Film and Processing Radiographs

- I. Describe the care and maintenance of the processing solutions, equipment, and equipment accessories used in manual and automatic film processing
- II. Describe common film processing (time and temperature) errors
- III. State the types and indications for the three types of dental radiographs
- IV. Identify the five basic sizes of intra-oral dental film
- V. Demonstrate understanding of digital radiology and new imaging systems.
Legal issues, Quality assurance, and Infection Control
Explain the infection control requirements for handling radiographs

DSA 18011

NUTRITION

- i. Describe how an understanding of nutrition is used in the profession of dental assisting
- ii. Define nutrients found in foods, including carbohydrates, fiber, fats, proteins and amino acids. Explain how they affect oral hygiene, general health and oral health in particular.
- iii. Define calorie and the basic metabolic rate.
- iv. Identify and explain how vitamins, major minerals, and water function in the body.
- v. Explain how to interpret food labeling

- vi. Discuss the implications of eating disorders.
- vii. Identify the food sources, functions, and implications of deficiencies of fat soluble vitamins, water soluble vitamins and the seven major minerals.

DSA 18012**PALLIATIVE CARE**

Demonstrate an understanding of basic facts about palliative care and illustrate how it can be applied to dentistry.

DSA 18013**DENTAL SPECIALITIES****PROSTHODONTICS**

Impression Materials

- I. List the three types of impressions taken in an oral health care facility
- II. Describe the types of impression trays and their characteristics of use
- III. Discuss hydrocolloid impression materials and their uses, mixing techniques, and Application
- IV. Discuss elastomeric impression materials and their uses, mixing techniques, and application
- V. Describe the importance of an occlusal registration and its use in a procedure
- VI. Discuss the safety precautions that should be taken in the dental laboratory
- VII. List the types of equipment found in a dental laboratory and their uses
- VIII. Observations/Assisting of PROSTHODONTIST specialist at work where possible (including Shadowing at the dental laboratory).

ENDODONTICS

- IX. Explain emergency endodontics
- X. Explain emergency routine for endodontics
- XI. Explain stages in endodontics procedures
- XII. Explain materials in endodontics
- XIII. Explain instruments in endodontics

PERIODONTICS, ORAL MEDICINE AND IMPLANTOLOGY

- XIV. Distinguish between periodontitis and gingivitis
- XV. Explain plaque and calculus
- XVI. Explain the causes of periodontitis and gingivitis
- XVII. Identify and describe the instruments used in periodontal therapy
- XVIII. Discuss periodontal surgical dressing materials and techniques applied
- XIX. Identify the risk factors that contribute to periodontal disease and dental caries
- XX. Observations/Assisting of PERIODONTIST specialist at work where possible (including implant cases).
- XXI. Describe dental therapies for periodontal diseases

ORAL AND MAXILLOFACIAL SURGERY

Preparation of surgery

- XXIII. Describe the indications for oral and maxillofacial surgery
- XXIV. Discuss the role of the Dental Assistant during oral surgery
- XXV. Discuss the importance of the chain of asepsis during a surgical procedure
- XXVI. Identify instruments used for surgical procedures including extractions

- XXVII. Describe post-operative care, including possible complications, given to a patient after a surgical procedure
- XXVIII. PRACTICALS: Observations/Assisting of MFOS specialist at work where possible (including theatre cases).
- XXIX. Explain different types of four asepsis

ORTHODONTICS

- XXX. Identify and give the functions of the basic orthodontic instruments and materials used
- XXXI. How to take intra-oral photos with a camera or cell phone, cropping, storage and printing
- XXXII. Pre and post treatment instructions.
- XXXIII. Describe the work of an orthodontist and the role of a dental surgery Assistant in an orthodontic practice.

PAEDODONTICS

- I. Describe basic child management techniques
- II. List indicators of child abuse
- III. Describe caries
- IV. Describe risk factors associated with caries and basic education
- V. Describe preventative techniques in children

COMMUNITY AND PUBLIC HEALTH DENTISTRY

Demonstrate basic understanding of Community Dentistry as a specialty within dentistry that examines the dental health and disease levels within a community. Dentists and researchers analyze variables associated with these distributions, and plan programs aimed at promoting the oral health of the community. Dental epidemiology is a central tool in the methodology connected to measuring variables associated with community dental health as well as in the promotion of community oral health is preventive dentistry.

DSA 18014 ATTACHMENT	<ol style="list-style-type: none"> I. Dental Practice: Work-Integrated Learning (Extended attachment at a registered and approved dental surgery). If the attachment is at public dental facility, a rotation in private dental setting is required. II. Minimum 10 months for those not formally employed. III. Written testimonial from the dentist as proof of comprehensive chairside assisting and infection control duties, will be needed in order to be admitted to the final examination.
DSA 18015 EVALUATION	<ol style="list-style-type: none"> I. The teaching-learning themes or topics are grouped into 4 modules or blocks of 3 to 4 months' duration each. Each teaching-learning module/block starts off with a 3 to 5 day residential/ face to face seminar or workshop. II. After the face to face seminar participants return to their work stations and continue to work through the modules with faculty on-line support and supervising dentist assistance. III. There is 2-hour mid-block postal test. IV. Each module has a summative 3 HOUR written examination under examination conditions. The final Module mark is an average of the two written evaluations. Any failed module has to be repeated. V. FINAL EXAMINATION of 3 hours' duration and a 45 MINUTE Objective Structured Clinical Examination (OSCE) at the end of the programme. An oral may be organized for borderline passes and borderline distinction candidates.