



DENTAL SURGERY ASSISTANT TRAINING PROGRAMME SPECIFICATION

COURSE CODE	MODULE Name
1.) DSA 18001	Human Anatomy, Physiology and pathology - Just introductory to body functions -Systems of the body
2.) 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
3.) 18003	DENTAL ASSISTING: PRACTICE MANAGEMENT I. Demonstrate how to do Dental charting II. Demonstrate how to do Dental Tray set up (fillings, extractions, ret, 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 AHFoZ 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

4.) 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
- vii. 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 Sterilisation

- 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

5.) 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



6.) DSA 18006

DENTAL PRACTICE CLINICAL MANAGEMENT PART 11

- 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
- VI. **WHAT IS PALLIATIVE CARE?**

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 (out sourced)

7.) 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

- i. 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

8.) 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. (ICDL outsourced)
- IX. Communicate with patients in respect of reception, appointment scheduling, fees and other enquiries related to activities performed in the dental environment
- X. Manage patient appointments, patient records and billing
- XI. 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
- XII. 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

9.) DSA 18009

BIOMEDICAL ETHICS, PUBLIC HEALTH AND HEALTH LAW



Ethical Consideration

- I. Brief history of Bioethics and patient protection
- II. Brief explanation 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

- i. Organization of Health services in Zimbabwe or your country of domicile
- ii. HPA and Health Councils (MDPCZ, Pharmacy Council, Nursing Council etc) or equivalent in your country
- iii. Public Health Act, Health Professions Council Act, Medical Services Act etc or equivalent in your country

Risk Management Consideration

- A. Define risk management
- B. List seven elements of an informed consent
 - 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

10.) DSA 18010

RADIOLOGY FOR DENTAL SURGERY ASSISTANTS

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

11.) 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 health and hygiene.
- iii. Define a calorie and the basal metabolic rate
- iv. Identify and explain how vitamins, major minerals and water function in the body.
- v. Explain how to interpret food labelling.
- 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.

12.) DSA 18012

DENTAL SPECIALITIES FROM THE EYES OF A DSA

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
- XI. Explain stages in endodontics procedures
- XII. Explain material in endodontics
- XIII. Explain instruments in endodontics

PERIODONTICS

- 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

- XXII. Describe the indications for oral and maxillofacial surgery
- XXIII. Discuss the role of the Dental Assistant during oral surgery
- XXIV. Discuss the importance of the chain of asepsis during a surgical procedure.
- XXV. Identify instruments used for surgical procedures including extractions.
- XXVI. Describe post-operative care, including possible complications, given to a patient after a surgical procedure.
- XXVII. **PRACTICALS:** Observations/Assisting of MFOS specialist at work where possible (including theatre cases).
- XXVIII. Explain different types of four asepsis

ORTHODONTICS

Orthodontics

- I. Identify and give the functions of the basic orthodontic instruments and materials used.
- II. Pre and post instructions.
- III. Observations of ORTHODONTIST specialist or dentists with special interest in orthodontics.

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

THE FOLLOWING IS NOT A COMPREHENSIVE LIST OF SKILLS & PRACTICALS THAT MAY BE ACQUIRED DURING ATTACHMENT AND WORK RELATED INTERGRATED LEARNING OF THE, DEPENDING ON THE SCOPE OF THE PLACES OF ATTACHMENT:

1. Oral health and preventive techniques

- Applying disclosing agent for plaque identification



- Bass or modified Bass Brushing Technique
 - Charters Brushing Technique
 - Modified Stillman Brushing Technique
 - Fones Brushing Technique
 - Modified Scrub Brushing Technique
 - Dental Flossing Technique
 - Fluoride Application
- 2. Infection control**
 - Hand washing technique
 - Putting own Personal Protection Equipment
 - Preparing the dental treatment room
 - Processing of contaminated trays, instruments, scrubbing, sterilization, packaging and storage
 - 3. Preparation for patient care**
 - Taking of vital signs (students to be attached at a clinic, OPD or hospital)
 - Medical, social and dental history taking/recording
 - Verification of medical insurance status
 - Registration of patient into surgery data base
 - 4. Emergency management**
 - Basic First Aid techniques (out sourced)
 - Prevention and recognition of dental or medical emergencies in the dental surgery
 - 5. Dental office and basic chairside assisting**
 - Daily dental office routine on opening for business
 - Daily routine for closing after business
 - Seating the patient properly
 - Dismissing the patient properly
 - Taking dictation from the patient, guardian, dentist or dental therapist
 - 6. Instrument transfer and the maintenance of the operating field**
 - One-handed instrument transfer
 - Four handed dentistry
 - Six handed dentistry
 - 7. Production, evaluation, editing and electronic filing of radiographs**
 - Historical discussion on analogue/manual radiographs
 - Digital intra-oral radiographs (taking, cropping, filing, printing, emailing etc)
 - Bisecting angle technique
 - Paralleling technique
 - Use of locators
 - 8. Observation and attachment at a facility providing extra-oral radiographs**
 - Panorex, Cephalogram, AP, PA, CBCT, TMJ
 - 9. Chairside assisting for endodontics, apicectomies, periodontics, prosthodontics etc**
 - 10. Chairside assisting for Oral and maxillofacial surgery**



- Surgical scrub
- Routine or uncomplicated extractions
- Multiple extractions
- Removal of impacted 3rd molars
- Biopsy
- Dental implants surgery
- Dry socket
- Placement and Removal of sutures

11. Chairside assisting for Orthodontics

- Placement and removal of elastic separators
- Cementation and removal of orthodontic bands
- Direct bonding of brackets
- Indirect bonding of brackets
- Self-ligating brackets
- Placement of arch wires
- Orthodontic photos
- Debonding
- Removal orthodontic appliances

12. Chairside assisting for Pediatric dentistry

- Pulpotomy
- Stainless steel crown placement
- Space maintainer
- Fissure sealants
- Topical fluoride application

13. Chairside assisting for Prosthodontics

- Retraction cord
- Crown and Bridge (preparation, procedure and cementation)
- Specialized impression techniques and materials for fixed prosthodontics
- CAD CAM manufacturing
- Primary impression for partial and full dentures appointment
- Special tray, study models etc
- Secondary impression for partial and full dentures appointment
- Manipulation of various related prostho materials for each stage
- Mixing alginate impression material
- Mixing polysiloxane single step and two step impression material
- Mixing Zinc oxide impression material
- Bite registration appointment
- Try in appointment
- Delivery appointment
- Denture relining

14. Chairside assisting for Restorative dentistry

- Mixing the right quantity and texture of the following materials (Zinc phosphate, zinc oxide eugenol powder-liquid/paste-paste formulations,



zinc polycarboxylate cement, Glass ionomer cements, calcium hydroxide,

- Use of dental amalgamator,
- Placement and removal of rubber dam
- Assembling of Tofflemire Matrix
- Placement of Tofflemire matrix

15. Dental Office management

- Preparation for the day's patient list
- Day sheet summary for posting
- Balancing Day sheets and End of Month Figures
- How to write a business check
- How to use a swipe machine
- How to prepare a bank transfer form/RTGS
- Preparing a bank deposit slip
- Reconciling a bank statement
- How to compose an email
- How to open a Gmail account, how to send an email/Tweeter/Whatsapp message/SMS
- How to write a business letter
- Basic computer skills-ICDL

16. Laboratory materials and techniques

- Operating a plaster vibrating machine
- Pouring and trimming a plaster model
- Removal of plaster model from alginate impression
- Trimming diagnostic casts/study models
- Appreciation of diverse laboratory manufacturing and fabrication processes.

THE END
