



Syllabus: BDS Course Content

Syllabus Phase I – First Year BDS:

General Human Anatomy including Embryology,

Osteology and Histology

1. Introduction
2. Detailed Anatomy and Osteology of Head & Neck.
3. Gross Anatomy of Thorax, Abdomen and Extremities.
4. Embryology of Head, Neck with emphasis on development of face, jaws, tongue, palate, salivary glands, pharyngeal arches and pouches. Lymphatic and blood vessel system. G.I. system.
5. Paranasal air sinuses.
6. (a) Gross Anatomy of the brain;
(b) Study of the Cranial nerves- in detail extra cranial course 5th, 7th and 9th cranial nerves and upper Cervical nerves.
7. Genetics: Fundamentals of Genetics.
8. Anthropology: General Principles.

Histology

A course of 30 lectures – demonstrations and practicals covering the following:

1. Epithelium including gland and of Gastrointestinal tract
2. Muscle
3. Periosteum
4. Bone
5. Cartilage
6. Adipose tissue
7. Fibrous tissue
8. Elastic tissue
9. Lymph tissue
10. Blood
11. Blood vessels
12. Nerves
13. Lung
14. Kidney
15. Spleen-Liver-Thymus-Pancreas
16. Endocrine glands



Dissection of Head and Neck excluding opening of skull and demonstrations of wet and dry specimens including brain.

Lectures _____ 70 hours

Dissection and Practical

demonstrations _____ 130 hours

Total _____ 200 hours

List of books recommended for reading and references:

1. G.J Romanes, Cunningham's manual of Practical Anatomy, Vol. III, Head & Neck, Oxford, Oxford University Press.
2. John V Basmajian, Grants Method of Anatomy, Battimore, Williams and Wilkins.
3. Peter L Williams, Gray's Anatomy, London, ELBS with Churchill Livingstone.

General Human Physiology, Biochemistry, Nutrition and Dietics

Physiology

Theory

Introduction to Physiology – The cell, the components of the cell and their functions. Tissues of the body: -Functions of epithelial tissues, glandular tissues, connective tissue and other tissues.

Blood

Fundamentals of muscle nerve physiology, composition and functions of RBC – variations in number of physiological and pathological states – life span and development of RBC. Blood volume, methods of measurement and variation.

Haemoglobin: Basic chemistry and fate of Hb.

Blood groups. WBC types, number, variations, functions, formation, circulation. Functions of lymph; Physiology of clotting.

Cardio-Vascular System

Basic haemodynamic principles, arterial blood pressure and factors affecting it. The structure and physiological properties of cardiac muscle. Origin and conduction of heart beat. Cardiac cycle, heart sounds, ECG. Regulation of heart's action, Vasomotor system and its regulation – Physiology of shock.

Respiration

Mechanics of respiration. Sub-divisions of lung air. Transport of respiratory gases in blood. Anoxia – types and physiological changes in artificial respiration.

Excretion

Urine – volume, normal and abnormal constituents. Mechanism of urine formation.

Digestion

Digestion in the mouth, digestion in the stomach and intestines, enzymes of the gastro-intestinal tract and their functions. Movements of the gastro-intestinal tract. Physiology of liver, pancreas, absorption and assimilation of food.

Endocrines

Thyroid-Iodine metabolism - functions of thyroid gland, Hyper and hypofunctioning of thyroid. Adrenal Cortex - Secretion of the cortical cells. Actions of gluco and minerals corticoids,



hyper and hypo functions of adrenal cortex Adrenaline and non-adrenaline action on various systems. Pituitary gland - Hormones, actions, abnormal functions of pituitary gland. Physiology of posterior Diabetes insipidus.

Parathyroid - Actions of parathormone and calcium metabolism.

Reproduction

Ovary - Ovarian hormone – their actions. Menstrual cycle, pregnancy, hormonal changes in pregnancy. Tests for pregnancy. Functions of testes, actions of Testosterone. Physiological basis of Family Planning methods.

Central Nervous System

Reflex action, spinal cord, conditional reflex, ascending and descending tracts, cerebral cortex, various areas and functions of Cerebellum.

Cerebellum: Physiology of thalamus and hypothalamus, autonomic nervous system. Cerebrospinal fluid. Fundamental knowledge of C.N.S. and special senses - Regulation of body temperature.

Special Senses

Fundamental knowledge of vision, hearing, taste and smell.

Nutrition

General metabolism, principles of colorimetry. Basal Metabolic rate, Metabolism of proteins, fats and carbohydrates.

Vitamins - Sources, requirement and actions. Basic principles of dietetics.

Biochemistry

The course provides the students with a sound knowledge on concepts of Biochemistry, which are applied to Dental Science. The students should be conversant with the principles and clinical application of Biochemistry - the structure and properties of amino acids, peptides and proteins; and introduction to the nature of enzymes and enzymatic reactions, mineral metabolism, whole body metabolism; biological carbohydrates and fats.

Physiology Practicals

1. Enumeration of Red blood cells.
2. Enumeration of white blood cells and Differential count.
3. Determination of haemoglobin.
4. Determination of blood groups.
5. Determination of Pulse and blood pressure.
6. Determination of bleeding time and clotting time.

Demonstrations

1. Determination of packed cell volume.
2. Clinical examination of chest.
3. Properties of excitable tissue.
4. Activity of frog's heart and effects of various stimulation and of atropine and adrenaline.
5. Perfusion of frog's heart effects on Na, Ca and K ions.
6. Demonstration of deep and superficial reflexes.



Biochemistry Practicals

1. Reactions of carbohydrates, proteins, fats, bile, salts and bile pigments.
2. Gastric analysis.
3. Pathological constituents of urine - detection and estimation of reducing sugars.

Lectures 50 plus 25 = 75 hours

Practicals 40 plus 30 = 70 hours

Total 145 hours

List of books recommended for reading and references:

1. Guyton, TextBook of Medical Physiology. Philadelphia, W.B. Saunders.
2. Cyril A Keele, Samson's Wrights Applied Physiology Delhi Oxford University Press.
3. John B. West. Best and Taylor's Physiological Basis of Medical Practice, Baltimore Williams and Wilkias.
4. AVSS Rama Rao, TextBook of Biochemistry for Medical Students, New Delhi.
5. Ganong: Review of Medical Physiology, Printice Hall International.

Dental Materials

Lectures 35 hours

Practicals & Demonstrations 30 hours

1. Introduction: Aim and scope of the science of dental materials.
2. Structure and behavior of Matter.
3. Important physical properties applicable to Dental Materials including their biological considerations.
4. Gypsum products used in dentistry including casting investment materials with or without gypsum binder.
5. Impressions materials used in dentistry including duplicating materials.
6. Synthetic resins used in dentistry –
 - (a) General properties and physical characteristics.
 - (b) Resins as denture base materials, repair and reline materials, soft liners, tissue conditioners.
 - (c) Resins as restorative materials: unfilled and filled resin restorative materials, tissue sealant.
 - (d) Direct-bonding cement materials.
7. Metals and alloys: Their structure and behavior, some important physical properties.
 - (a) Dental amalgam alloys



- (b) Gold foil
- (c) Dental casting gold alloys
- (d) Stainless steel, chrome-cobalt alloys
- 8. Dental waxes including inlay casting wax.
- 9. Gold inlay casting procedures: preparation of the die-wax pattern, spruing, investing-control of shrinkage compensation. Wax elimination-casting machines, casting, and defects in castings.
- 10. Welding and soldering - materials used.
- 11. Dental Cements: Classification, composition, manipulation, properties and uses Zinc Cements, Copper cements, Zinc-oxide eugenol cements, Silicate cements, cavity liners, and cavity varnishers, resin cements.
- 12. Dental porcelain including porcelain fused to metal. Porcelain furnace and fusing.
- 13. Mechanics of tooth cutting. Burs and points.
- 14. Abrasives and polishing agents.
- 15. Die & counter die materials including electroforming & electro-polishing.

Practicals and Demonstrations to be arranged in the manipulation of the more common materials.

List of books recommended for reading and references:

1. Kenneth J. Anusavice, Philips, Science of Dental Materials. Tenth Edition, W.B. Saunders Company.
2. Anderson: Applied Dental Materials.
3. E.A Smith: Dental Metallurgy and non-metallic materials.
4. Restorative dental materials by Craig.
5. Dental materials by P.K Basu.
6. Cambel Smith: Chemistry and Metallurgy of Dental Materials.

Syllabus Phase I – Second Year BDS:

General Pathology

Introduction to Pathology as a scientific study of disease and some techniques used in the same.

Causes of disease with special reference to our prevailing conditions.

Cellular structure and Metabolism.

Disturbances in Metabolism of cells.

Retrogressive changes: Degeneration, Necrosis and Gangrene, Amyloidosis, Ligidosis and disorders of Pigmentation, calcification.



Inflammation - Acute and chronic inflammation. Repair with special emphasis on repair of bones, wounds and the effects of modern treatment on repair.

Hypersensitivity and Allergic.

Haemorrhage, shock, reaction of body to injury.

Circulatory disturbance and Hypertension.

Pathology of Bacterial infections with reference to the common diseases prevalent in our country, e.g. Pyogenic infection, Enteric fever, Toxemias Tuberculosis Leprosy, Syphilis and some examples of epidemic infections of public health interest and hospital infections. Common diseases of the bone.

Injuries due to chemical and physical agents including ionising radiations.

Disturbances of nutrition with special reference to Indian conditions. Metabolic disorders, e.g. Rickets, Scurvey, Diabetes, Mellitus, etc.

General biology of Tumours, spread of malignant tumours.

A course of lectures, lecture demonstrations and practicals in clinical pathology comprising of Anemias and their laboratory investigations, blood disorders including Leukemias, bleeding disorders and their investigations. Laboratory investigations commonly required by Dental Surgeons

Lectures 45 hours

Practicals and demonstrations 60 hours

Total 105 hours

List of books recommended for reading and references:

1. A. Critchie, Boyd's TextBook of Pathology, Vol. I&II, Philadelphia, Lea and Mebiger.
2. Cotfxan Kumar Roffins Robbins Pathologic basis of Disease, Philadelphia, W.B Saunders.
3. John M Issane Andersons Pathology, Vol. I &II St.Louis, C.V Mosby company.

Microbiology

A course of lectures, demonstrations and practicals in general Bacteriology and elementary Virology, Mycology and Parasitology.

Introduction to Bacteriology with special reference to Medical and Dental Bacteriology including public health and preventive aspect of infection and infections diseases. Pyaemia, sepioemia and toxaemia.

Immunity and immunising agents-vaccines, sera.

Auto-immunity with special emphasis on practical application.

Morphology, Physiology and classification of micro organisms in general and of the following in particular pus forming organisms-cocci and bacilli: -

Normal flora of the mouth and upper and lower respiratory tracts.

Organisms causing meningitis, diphtheria, tetanus, gas gangrene, tuberculosis, syphilis.



Organisms related to dental caries.

Elementary knowledge of Virology and Mycology with examples of lesions of Orofacial region.

Common parasites and parasitic diseases - Amoebiasis, malaria, helminthic infections.

Lectures 30 hours

Practicals and Demonstrations 60 hours

Total 90 hours

List of books recommended for reading and references:

1. Fair brother's text book of Bacteriology
2. Bacteriology & Immunology for students of medicine, Biggers
3. Medical Bacteriology N.C. Dey
4. Text book of Microbiology, R. Ananthanarayan & C.K. Jayaram Panicker
5. Bacteriology for dental students, T.H. Merville & G.Lslack
6. Bacteriology for students of Dental surgery, R.B Lucas & Ivor R.H Kramer
7. Oral Microbiology & Infections Disease, Burnett & Scharp
8. Ananthanarayan R and Jayaram Paniker C.K. Text Book of Microbiology Madras Orient Longman.

General and Dental Pharmacology and Therapeutics

Lectures

General Pharmacology

1. General principles of pharmacology, dosage forms, prescription writings; pharmacokinetics (absorption, distribution, metabolism and excretion of drugs), mode of action of drugs, factors modifying drug response, adverse drug reactions, drug interactions.
2. CNS drugs: General anaesthetics, hypnotics, analgesics, psychotropic drugs, antiepileptics muscle relaxants, analeptics, local anaesthetics.
3. Autonomic drugs: sympathomimetics, antiadrenergic drugs, parasymphomimetics, parasympatholytics, histamine and antihistaminics.
4. Cardiovascular drugs: Cardiac stimulants and antiarrhythmic drugs, antihypertensive drugs, vasopressor agents and treatment of shock.
5. Drugs acting on blood: Coagulants and anticoagulants, hematinics.
6. G.I.T. Drugs: Purgatives, anti-diarrhoeal, antacids, anti-emetics.
7. Endocrines: Emphasis on treatment of diabetes and adrenal cortical steroids.
8. Chemotherapy: Sulfonamides and antibiotics, chemotherapy of tuberculosis, leprosy and malignancy.
9. Vitamins.
10. Miscellaneous drugs: such as diuretics, heavy metal antagonists (B.A.L. and E.D.T.A.) etc.



Dental Pharmacology & Therapeutics

1. Anti-septics, astringents, obtundents, mummifying agents, bleaching agents, styptics, disclosing agents, dentifrices and mouth washes.
2. Treatment of common oral condition.

Practicals and Demonstrations: To familiarise the student with the methodology: Prescription writing and dispensing.

Lectures 40 hours

Practicals & Demonstrations 20 hours

Total 60 hours

List of books recommended for reading and references:

1. R.S Satoskar.Kale Bhandarkars pharmacology and Pharmacotherapeutics,10th Edition,Bombay Popular Prakashan 1991.
2. Bertam G. Katzung,Basic and clinical pharmacology 8th Ed Churchill Livingstone 1997.
3. Satoskar R.S &Bhandarkar S>D Pharmacology and pharmacotherapeutics part I &II 13th Ed Popular Prakashan Bombay 1993.
4. Laurence D.R Clinical pharmacology 8 th Ed Churchill Livingstone 1997.
5. Tripathi K.D Essentials of Medical pharmacology 3rd Ed Jaypee Brothers 1994.

Oral and Dental Anatomy, Physiology and Histology

Introduction:

Development and growth of jaws.

Development of the teeth and surrounding structures and calcifications (including theories) of hard tissues. Microscopic anatomy of hard and soft tissue of the tooth and surrounding structures, oral mucous membrane, the lips, tongue, floor of the mouth, palate and the salivary glands.

Eruption and shedding of teeth.

Morphology of teeth Occlusion.

Saliva, Calcium metabolism. Mastication and deglutition.

Age changes in teeth and surrounding structures.

Clinical consideration where applicable.

Practicals/ Demonstrations:

1. Demonstration of preparation of dental tissues for microscopic examination. Ground and stained sections.
2. Microscopic study of normal oral and dental tissues.
3. Microscopic study and identification of teeth.
4. Tooth carving.

Lectures 40 hours

Practicals 90 hours

Total 130 hours



List of books recommended for reading and references:

5. S.N Bhasker, Orban's Oral Histology & Embryology 10th Ed., CBS Publishers & Distributors, Delhi.
6. Major M Ash, Wheeler's Dental Anatomy, Physiology and occlusion 6th Edition, W.B Saunders company, Philadelphia.
7. Petter L. Williams Gray's anatomy, 38th Ed., London, ELBS with Churchill Livingstone 1995.

Pre Clinical prosthetic Dentistry:

(Only Practicals – preceded by Demonstrations)

Practical Programme:

1. Preparation of wrought wire Cribs
2. Preparation of Adam's Clasp
3. Preparation of Gunning Splint in Heat Cure Acrylic Resin
4. Preparation of Cap Splint in Acrylic
5. Preparation of a Partial Denture
6. Designing and preparation of Wax patterns on partially Edentulous cast as per Kennedy's classification
7. Preparation of immediate partial Denture by Heat cure Acrylic Resin
8. Designing and planning of Removable Partial Dentures as per Kennedy's classification:
 - a. Kennedy Class I
 - b. Kennedy class II
 - c. Kennedy class III
 - d. Kennedy class IV
 - e. Gum Fit Denture
9. Preparation of Special trays (Upper & Lower)
 - a. Using Shellac Base plates – with Filed margin.
 - b. Using Shellac Base plates – with Folded margin.
 - c. Using self-cure Acrylic Resin.
10. Preparation of Permanent Denture Bases in Heat cure Acrylic Resin
11. Fabrication of a set of complete Dentures.
12. Repair of a Broken Denture by Self-Cure Acrylic Resin.
13. Repair of a Broken Denture by Heat Cure Acrylic Resin.

Pre Clinical Conservative Dentistry:

(Only Practicals – preceded by Demonstrations)

Preparation of Plaster Blocks – 5 x 5 x 5 cms.

1. Preparation of 2 x 2 x 2 cms size in the plaster blocks
2. Preparation of Proximal cavity of 2 x 2 x 2 cms size in the prepared Block.
3. Preparation of Class II type Cavity (Dove tail form)
4. Preparation of Plaster models of teeth from Acrylic models:
 - a. Mandibular molars- 2



- b. Maxillary molars-2
- c. Premolars-2
- d. Canine -2
- e. Central Incisor-2
5. Class I Cavity
6. Buccal Pit (Class I)
7. Buccal Extension (Class I)
8. Class II (M.O or D.O)
9. Class II (M.O.D)
10. Class III
11. Class IV
12. Class V
13. Mounting the teeth in a Manekin Jaw
14. Preparation of Cavities on the Mounted teeth in the Manekin Jaw. - 26
15. Preparation of tooth for Jacket Crown - 5
16. Preparation of teeth for Root Canal treatment - 5

Syllabus Phase II – Third Year BDS:

General Medicine

Introduction:

Aims of Medicine.

Definition of diagnosis, prognosis and treatment.

History taking and physical examination of a medical case.

Medical emergencies in dental practice.

G.I. Disorders:

Stomatitis, glossitis, gastritis, Diarrhoea, Amoebiasis, Ascites, malabsorption syndrome.

Liver:

Jaundice, Viral hepatitis, cirrhosis liver. Tender hepatomegaly.

Cardiovascular System:

Congenital heart disease, classification, Rheumatic heart disease, Subacute bacterial endocarditis

Congestive heart failure Left ventricular failure.



Hypertension

Coronary artery disease

Respiratory System:

Pneumonia, Bronchitis, Emphysema, Lung, Abscess, Eosinophilia, Pulmonary Embolism, Pulmonary Tuberculosis, Respiratory failure.

Renal Diseases:

Nephritis, Nephrotic Syndrome

Hematology:

Anaemia, Coagulation defects, Bleeding disorders.

Agranulocytosis, Leukaemia, Oral manifestations of hematological disorders, Lymphadenopathy and splenomegaly.

Central Nervous System:

Meningitis, Facial Palsy, Facial pain, Epilepsy, Headache, Syncope.

Nutritional and Metabolic:

Balanced diet Normal daily

Protein caloric malnutrition requirements

Avitaminosis

Diabetes mellitus

Calcium homestasis

Endocrine Disorders:

Thyroid-Hypo and hyper pituitary

Hypo and hyper parathyroid

Infections:

Enteric fever

Mumps

Viral exanthemate

Diphtheria

Syphilis

Gonorrhoea



Miscellaneous:

Allergy

Drug reactions

Drug interactions

Evaluation of a case for general anaesthesia

Lectures 40 hours

Clinical 90 hours

Total 130 hours

List of books recommended for reading and references:

1. Edward Christopher R.W Davidson's Principles & Practice of Medicine 16th Ed., ELBS 1991.
8. Swash Michael, Hutchisons clinical methods 20th Ed., ELBS 1995.
9. Wilson Tean, D Harrison Principles of Internal Medicine 12th Ed., Vol. I & II Mcgrar Hill Inc, 1991.

General Surgery:

10. Introduction to surgery, surgery especially related to Ora-dental surgery, Classification of diseases.
11. Inflammation, Soft-tissue, hard tissue-Cause, varieties, sequelae and treatment.
12. Infections-Acute and Chronic Abscess, Carbuncle Sinus, Fistula, Ulceration, Gangrene, Cellulitis, Erysipelas, Septicaemia, Pyaemia, Toxaemia, Cancrum Oris, Tuberculosis, Syphilis, Gonorrhoea, Actinomycosis, Anthrax, Tetanus.
13. Wounds-Complications, Treatment, Repairs Asepsis and Antiseptic measures and procedure with particular reference to the Oral cavity. Haemorrhage and its treatment Haemophillia, Syncope, Shock, Collapse, Head Injury-introduction.
14. Cysts and new growths- Their general consideration with special reference to those occurring in the Buccal Cavity.
15. Diseases of the Lymphatic glands, especially of the neck.
16. Outline of diseases of the mouth, lips, tongue, palate, tonsils and salivary glands.
17. Infections and diseases of the Larynx, Tracheostomy.
18. Nervous system-injury to Facial nerves, Paralysis trigeminal Neuralgia.
19. Principles of surgical treatment, diathermy and radium treatment.
20. Fracture-General principles of treatment, Diathermy and healing.
21. Cleft lip and cleft palate.
22. Thyroid and Parathyroid.
23. Swellings of Jaws
 - i. Case sheet writing and demonstration.
 - ii. Ward procedure, including wound dressing



Lectures 40 hours

Clinicals 90 hours

Total 130 hours

List of books recommended for reading and references:

1. Charles V. Mann, Bailey & Loves short practice of surgery, Twenty second Edition, ELBS with Chapman Hall 1995.

xxiv. S. Das, A Manual on clinical Surgery 4th Ed., S. Das Calcutta 1996.

Oral Pathology and Microbiology

- xxv. Aims and objectives.
- xxvi. Development disturbances of dental, oral and para-oral structures, including hereditary disorders.
- xxvii. Dental Caries.
- xxviii. Pulpal and periapical pathosis and their sequelae.
- xxix. Environmental lesions of the oral and para-oral structures.
- xxx. Defense mechanism of oral tissues and healing following injuries.
- xxxi. Diseases of periodontal ligament, gingivae and cementum.
- xxxii. Effects of nutritional disturbances and normal disorders on the oral and para-oral structures.
- xxxiii. Infections: Diseases of oral mucosa.
- xxxiv. Bone disorders affecting jaws.
- xxxv. Cysts of oral cavity.
- xxxvi. Pre-Cancerous lesions-etiology and pathology.
- xxxvii. Neoplasms of Oral cavity.
- xxxviii. Diseases of salivary and lymph glands.
- xxxix. Diseases of Temporomandibular joint.
- xl. Diseases of nerves, skin, blood and their implications to oral tissues.
- xli. Effects of radiation on oral and para-oral tissues.
- xlii. Oral Microbiology.

Practicals:

- xliii. Identification of hard and soft tissue specimens.
- xliv. Identification of histopathological microbiological slides.
- xlv. Biopsy and exfoliative cytology-techniques.

Lectures 50 hours

Practicals 90 hours

Total 140 hours



List of books recommended for reading and references:

1. Shafer Williams G A Textbook of Oral Pathology 4th Ed., Prism Book Pvt Ltd 1993.
 - xlvi. Bhasker S.N Synopsis of oral Pathology 7th Ed., CBS publishers & Distributers 1986.
 - xlvii. Walter J.B Walter Hamilton and Israel's principles of pathology for dental students 5th Ed., Churchill Livingstone 1992.
 - xlviii. Regizi Joseph A Oral Pathology Clinical pathologic correlation 2nd Ed., W.NB Saunders Company 1989.

Community Dentistry

xlix. Biostatistics:

Introduction and General Principles of Biostatitics, Statistical proce dures.

i. Psychology

Introduction, Psychological development from birth to adolescence, Manage- ment of child in the dental office – Parent counselling in respect of dental health and hygiene of the child.

ii. Public Health

Concept and philosophy of public health, public health in India.

General Epidemiology, Health Education, environmental health, disposal of wastes.

Water: norms for potability, purification.

iii. Preventive Dentistry:

Prevention, levels of prevention, various measures in the prevention of dental and oral diseases at individual and mass level.

liii. Public Health Dentistry

Introduction, definition, objectives functions of public health dentist, proce- dural steps in dental public health, indices, for dental diseases, surveying and evaluation, Epidemiology of dental cares, periodontal diseases, oral cancer. Utilisation of dental manpower, payment for dental care, public health programme. School Dental health programme. Dental Health services at State and Center. Private practice administration, ethics, Dental Council and Asso- ciation.

liv. Social Sciences

As applied to health, social structure concepts, groups, social institution, urban and rural societies, their concept of health. Application of sociology in health programme, social environment.

Cultural Anthropology objective, different aspects of folk medicine, and popular medicine. Culture pattern and complexes, taboos, as related to health.

Field Programme:

In rural areas to conduct survey of dental diseases, provide dental Health Education, emergency treatment.

- iv. School – Health Programme, dental care for school children and preventive programme – Topical fluoride application and oral hygiene demonstrations.

Lectures 30 hours

Field programme 100 hours



List of books recommended for reading and references:

1. Community Dentistry, Clifford Dummet
2. Dental Public Health, Jodffery Black
3. Dentist his practice and community
4. Preventive Dentistry, Muller & Hine
5. Preventive medicine & Public Health, Sparks
6. Fluoride & Dental Fluorosis, Myers
7. Preventive Dentistry, Forrest J.O
8. Preventive medicine for the doctor in his community, Lavell & Clark
9. Better health through preventive Dentistry, Billings M.L
10. Principles of Dental Public Health. 1979 Ed. J.m.Dunning

Syllabus Phase II – Final Year BDS:

Prosthetics and Crown & Bridge

Ivi. Complete Dentures

- lvii. Introduction & scope.
- lviii. Applied anatomy.
- lix. Examination, diagnosis treatment planning and desiduary prognosis.
- lx. Principles of retention & stability.
- lxi. Principles and techniques of impression making
- lxii. Preparation of casts, trays and temporary denture-bases.
- lxiii. Jaw-relations and methods of registration.
- lxiv. Artificial teeth their selection and arrangements and esthetics.
- lxv. Articulators and face bows.
- lxvi. Occlusion and articulation in complete denture.
- lxvii. Trying in of complete dentures.
- lxviii. Processing and finishing of dentures.
- lix. Correction of Occlusal discrepancies.
- lxx. Delivery and adjustments of complete dentures.
- lxxi. Sequelae of ill-fitting dentures.
- lxxii. Repair, rebasing and refining.
- lxxiii. Immediate dentures.
- lxxiv. Implant dentures.

Ixxv. Removable Partial Dentures

- lxxvi. Introduction and scope.
- lxxvii. Classification.
- lxxviii. Examination, diagnosis and treatment planning.
- lxxix. Components of removable partial dentures and their function.
- lxxx. Surveyors.
- lxxxi. Mouth preparations for partial dentures.
- lxxxii. Impression procedures.
- lxxxiii. Designs of removable partial dentures and its associated problems.
- lxxxiv. Fabrication of cast metal framework.
- lxxxv. Jaw relation record.
- lxxxvi. Selection and arrangement of teeth.
- lxxxvii. Acrylic partial dentures.
- lxxxviii. Trying in of partial dentures.
- lxxxix. Processing, finishing, delivery and maintenance of partial dentures.
- xc. Immediate partial dentures.

xci. Elements of Crown and Bridge Prosthesis



- . Introduction Definitions.
- i. Indication and contra-indications.
- ii. Examination, diagnosis & treatment planning.
- iii. Selection and choice of abutment teeth.
- iv. Principles of tooth reduction.
- v. Indication, contraindications and procedures of preparation of abutment teeth for receiving various types of retainers.
- vi. Temporary protections of a prepared tooth.
- vii. Gingival retractions Impression procedures.
- viii. Construction of dyes and working models, direct and indirect technique.
- ix. Technique of fabrication of retainers.
- x. Selection & fabrication of pontics.
- xi. Connectors stress-breakers and assembly of fixed bridges.
- xii. Finishing cementing and maintenance of crowns and bridges.

xcii. Maxillofacial Prosthesis

- xciii. Splints
- xciv. Obturators
- xcv. Carriers

Lectures 80 plus 20 = 100 hours

Practical/ Clinicals 360 (Techniques) plus

540 (Clinicals)

Total 1000 hours

List of books recommended for reading and references:

1. Boucher's Prosthodontic treatment for edentulous patients, George A. Zarb
2. Complete Prosthodontics: Problems, Diagnosis and Management, Grant Alam A.
3. Syllabus of Complete Dentures, Heartwell Charless M.
4. Clinical Dental Prosthetics, Fenn H.R.B
5. Essentials of Complete Denture Prosthesis, Winkler Sheldon
6. Mc Cracken's Removable Partial prosthodontics, Mcgivney Glen P.
7. Removable Partial Prosthodontics, Grasso Joseph E. & Miller Earnest L.
8. Removable Partial Dentures, Renner Robert P.
9. Partial Dentures, Osborne John
10. Clinical Removable Prosthodontics, Stewart Kenneth L.
11. Inlays, Crowns & Bridges – a Clinical Hand Book, Howe Leslie C.
12. Dental Crowns & Bridges –Design Preparation, Berned G. N. Smith
13. Tylman's Theory & Practice of Fixed Prosthodontics, Willam F.P. Malone
14. Contemporary Fixed Prosthodontics, Rosentiel Stephen F.



Conservative Dentistry and Endodontics

Definition & scope.

Oral hygiene in relation to conservative dentistry.

Instruments – Nomenclature design and formulae care and sterilisation.

Examination diagnosis and treatment planning.

Charting and recording of cases.

Cavities classification and nomenclature.

Choice of filling materials.

Principles of cavity-preparation, control of pain, prevention of damage to hard and soft tissues during operative procedures.

Methods employed for exclusion of saliva.

Bio-Mechanics of cavity design and restoration with filling materials.

Filling materials. Pulp and soft tissue protection.

Airrotors and high speed equipment.

Cavity preparation for various types of restorations including inlays and onlays restorative procedures.

Matrices

Drugs used in Conservative Dentistry.

Fractured teeth and their treatment.

Sensitive dentine, its treatment.

Ceramics in Conservative Dentistry.

Endodontics :

Rationale of endodontic therapy.

Diagnostic aids in Endodontics.

Care and sterilisation of instruments for Endodontics.

Treatment of vital and nonvital pulp.

Tests for sterility of the root canal.

Drugs used in root canal therapy.

Bleaching of teeth.

Restoration of endodontically treated teeth.

Surgical treatment in Endodontics.

Lectures 70 hours

Techniques 240 hours



Practicals 360 hours

Total 670 hours

Note : In view of the importance of the digital dexterity more number of hours is provided for technique work.

List of books recommended for reading and references:

2. G.V. Black's Operative Dentistry Vol. II, A.D. Brack
3. Operative Dentistry, H. Williams Gillmore
4. The Art and Science of Operative Dentistry, Clifford M. Sturdevant
5. A Manual of Operative Dentistry, H. M. Pickard
6. Endodontic Practice, Louis Grossman

Orthodontics

The following syllabus is suggested with a view to make the student understand the types of cases he can select for of treatment as a general practitioner and how best he can guide the patient and parents. Hence stress should be on the preventive and interceptive principles of Orthodontics.

- xcvi. Definition, aims, objects and scope of Orthodontics.
- xcvii. Growth and development of jaws, teeth, face and skull and establishment of normal occlusion.
- xcviii. Genetics as applied to Orthodontics.
- xcix. Normal occlusion and its characteristics. Factors, responsible for establishment and maintenance of normal occlusion.
- c. Malocclusion-type and different classification.
- ci. Aetiology of malocclusion.
- cii. History taking and examination of patient and case analysis and differential diagnosis including cephalometrics and treatment planning.
- ciii. (a) Preventive and interceptive treatment of malocclusion.
(b) Extraction in Orthodontics.
- civ. Appliances used in Orthodontic treatment-Adequate knowledge of removable appliances, Mechanical appliances and functional appliances and elementary knowledge of fixed appliances.
- cv. Tissue changes incident to orthodontic treatment.
- cvi. Retention after treatment and relapse.
- cvii. Materials used in Orthodontia.
- cviii. Habit breaking appliances.

Lectures 40 hours

Practical & Clinicals 150 hours

Total 190 hours

The teaching of Orthodontia clinics and practicals should be arranged during pre-final and final BDS years.



List of books recommended for reading and references:

1. Contemporary Orthodontics, William R. Profit
1. Orthodontics – Principles & Practice, Graber T.M.
2. The Design Construction and use Removable Orthodontic Appliances, C. Phillip Adams.
3. Orthodontics for Dental Students, T.C. White & J.H. Gardiner.
4. Hand Book of Orthodontics, Moyers Robert E.

Oral Surgery, Local Anaesthesia and General Anaesthesia

Local Anaesthesia

- i. Introduction.
- ii. Properties of an ideal local anaesthetic drug.
- iii. Properties of common local anaesthetic drugs in use.
- iv. Choice of anaesthesia, local or general anaesthesia.
- v. Indications and contra-indications, advantages and disadvantages of local anaesthesia.
- vi. Components of a standard local anaesthetic solution, and the part played by each component.
- vii. How does local anaesthetic acts.
- viii. Pre-anaesthetic medication.
- ix. Technique of infiltration anaesthesia, Nerve block anaesthesia, Symptoms and signs of anaesthesia.
- x. Complications associated with local anaesthesia and their management.

General Anaesthesia

1. Properties of general anaesthetic drugs commonly used.
2. Pre-anaesthetic preparation of a patient and pre-medication.
3. Evaluation of a patient for general anaesthesia.
4. Short anaesthesia in a Dental Chair, Endotracheal anaesthesia, Intravenous anaesthesia.
5. Symptoms and signs of general anaesthesia.
6. Complications arising during the administration of general anaesthesia and their management.

Exodontia

1. Objectives
2. Indications for tooth extraction
3. Pre-operative assessment



4. Forceps extraction
5. Surgical extraction (Trans-alveolar extraction)
6. Extraction technique under general anaesthesia in the Dental Chair
7. Complication of tooth extraction and their management

Oral Surgery

- cix. Definition and Scope
- cx. Diagnosis in Oral Surgery
- cxi. History taking, (b) Clinical examination, (c) Special investigations
- cxii. Importance of general condition of the patient in relation to Oral Surgery.
- cxiii. Treatment planning.
- cxiv. Sterilization.
- cxv. Use of antibiotics in Oral Surgery.
- cxvi. Diagnosis, pre-operative assessment and treatment of impacted teeth.
- cxvii. Pre-prosthetic Surgery.
- cxviii. Surgical aid to Orthodontics.
- cxix. Pro-facial infections, their diagnosis and treatment.
- cxx. Inflammatory diseases of Jaw bone and their management.
- cxxi. Diagnosis and management of Cysts of Oral Cavity.
- cxxii. Diagnosis and treatment of the fracture of the mandible.
- cxxiii. General outline of the fracture of the middle-third of the facial skeleton.
- cxxiv. Diagnosis and treatment of benign neoplastic lesions of the Oral Cavity (Odontogenic and non-odontogenic).
- cxv. Surgical procedure in relation to endodontic therapy apicectomy.
- cxxvi. Surgical treatment of tumor like lesions of the Oral Cavity including odontome.
- cxxvii. Diseases of maxillary sinus, with special reference to pro-antral fistula.
- cxxviii. Management of haemorrhage in Oral Surgery.
- cxxix. Diseases of salivary glands, diagnosis treatment of Salivary Calculi and neoplasms arising from minor salivary glands.
- cxxx. Surgical aspect of histopathological diagnosis.
- cxxxi. Oral Surgical complications and their management.
- cxxxii. Diagnosis of malignant condition of Oral Cavity, a broad outline about the different methods of treatment.
- cxxxiii. Diseases of temporomandibular joint, such as arthritis, hypoplasia, subluxation, dislocation, ankylosis. Other causes of inability to open the mouth.
- cxxxiv. Affections of trigeminal and facial nerves.

Lectures

Anaesthesia (Local and general) 10 hours

Exodontia 10 hours

Oral Surgery 40 hours

Total 60 hours

Clinical 220 hours

Total Practical & Clinical hours 280 hours



List of books recommended for reading and references:

Oral & Maxillofacial Surgery, Vol. I & II, Daniel M. Laskin

1. Text Book of Oral & Maxillofacial Surgery, Gustav O. Kruger.
2. Cysts of the Oral Region, Shear M.
3. Extraction of Teeth, Geoffrey L. Howe
4. Oral & Maxillofacial Surgery, Archer W.H.

Oral Medicine and Roentgenology

Oral Medicine

- i. Scope and importance of the subject.
- ii. Methods of diagnosis including special investigations.
- iii. Acute infections of oral and para-oral structures.
- iv. Blood dyscrasias and their management.
- v. Management of Cardiac patient in dentistry.
- vi. Metabolic and Endocrine, disturbances, their oral manifestations.
- vii. Nutritional deficiencies, and their significance in dentistry.
- viii. Oral sepsis and its; effect on general system.
- ix. Disfunctions of Tempero-Mandibular joints.
- x. Cervico-facial Lymphadenopathy
- xi. Diseases of salivary glands.
- xii. Facial pain
- xiii. Cysts and tumours of the oral cavity.
- xiv. Oral manifestations of dermatological and other systemic disturbances.
- xv. Special investigations.
- xvi. Immune concepts of oral lesions.
- xvii. Forensic odontology

Roentgenology

- xviii. Physics of radiation-production and properties of X-rays.
- xix. Principles of X-ray techniques and factors for Radiography and Fluoroscopy.
- xx. Technique of intra-oral and extra-oral Radiography and normal anatomical land marks.
- xxi. Radiological interpretation of abnormal dental and jaw conditions.
- xxii. Elements of Radiation treatment in oral and facial conditions and their sequelae.
- xxiii. Contrast radiography and recent advances in Dental Radiology including radioactive traces.

Lectures 40 hours

Practical 90 hours

Total 130 hours



List of books recommended for reading and references:

Diseases of the Mouth & Jaws, Edward V. Zagarelli.

1. Burket's Oral Medicine, Diagnosis & Treatment, Malcolm A. Lynch.
1. Oral Radiology – Principles & Interpretation, Paul W. Goaz & Stuart C. White
2. Dental Roentgenology, LeRoy M. Ennis.

Periodontics

- cxxxv. Introduction: Scope and applicability of the subject, Historical background of Periodontology.
 - cxxxvi. Maintenance of Health-Role and scope of Oral Physiotherapy measures, patient education-programme and periodic check.
 - cxxxvii. Classification of gingival and periodontal disturbances.
 - cxxxviii. Gingival enlargement.
 - cxix. Infective muco-gingival conditions-specific and nonspecific.
 - cxl. Degenerative conditions – Gingivitis and Periodontitis.
 - cxli. Atrophic conditions affecting gingival and periodontal tissues.
 - cxlii. Local and systemic factors in the causation of gingival and periodontal lesions.
 - cxliii. Periodontitis and sequelae.
 - cxliv. Malocclusion: Mal-alignment and traumatic occlusion Bruxism and Tempero-mandibular joint disturbances. Occlusal equilibration.
 - cxlv. Diagnosis and diagnostic aids including roentgenography and its uses and limitations.
 - cxlvi. Prognosis.
 - cxlvii. Morphological defects of the muco-gingival structures influencing periodontium and their treatment.
 - cxlviii. Treatment of all gingival and periodontal disturbances – Treatment planning phases and rationale. Different available therapeutic procedures. Healing Mechanism.
 - cxlix. Role of Nutrition in aetiology and treatment.
 - cl. Drugs in Periodontics.
 - cli. Instrumentation.
18. Splints.
19. Preventive periodontics, concept of focal infection.
20. Materials used in Periodontia.

Clinicals

Varied approaches towards plaque control.

Treatment of sufficient number of cases of scaling and root planning.

Approach, examination, diagnosis (including differential/ diagnosis) and analysis of Periodontal and other cases, clinically.

Treatment planning including surgical treatment and execution of the same Occlusal equilibration.

Lectures 45 hours

Practical/ Clinicals 205 hours

Total 250 hours



List of books recommended for reading and references:

1. Glickman's Periodontology, Fermin A. Carrauze.
2. Periodontology – Diagnosis & Treatment, Frank E. Benbe.
3. Advanced Periodontal Disease – Surgical & Prosthetic Management, John F. Prichard.
4. Periodontics – A concept – Theory & Practice, Ballint Orban.
5. Periodontal Therapy, Goldman H.M.
6. Basic Periodontology, Bryon Wade A.
7. Essentials of Periodontology & Periodontics, Torquil Macphee.
8. The Practice of Periodontia, Sydney Sorbin.

Pedodontia

- clii. Introduction, definition, scope and importance of Pedodontics.
- cliii. Growth and Development of Dental and Oral Facial Structures and normal occlusion. Development anomalies.
- cliv. Morphology of Dentitions and its application.
 - . Applied Morphology and Histology of deciduous and permanent teeth.
 - i. Importance of first permanent molar.
- clv. Fundamentals of Dental Health.
- clvi. Biological factors responsible for maintenance of Dental and Oral Health.
- clvii. Contributory local factors affecting oral health-plaque etc.
- clviii. Child psychology and management of child patient.
- clix. Examination, Diagnosis and treatment planning.
- clx. Clinical Pedodontics.
 - . Set up of Pedodontic clinic.
 - i. Teething disorders.
 - ii. Developmental anomalies
 - iii. Dental caries in children.
 - iv. Restorative dentistry

Pulp Therapy and Endodontics

- v. Space Maintainers
- vi. Treatment of traumatized teeth.
- vii. Management of problems of the primary and mixed dentition period.
- viii. Gingival disorders in children.
- ix. Stomatological conditions in children.
- x. Management of handicapped children.
- xi. Mouth habits and their managements.

Lectures 40 hours

Practical & Clinicals 150 hours

Total 190 hours

List of books recommended for reading and references:

1. Dentistry for the Child and Adolescent, Ralph E. McDonald.
1. Clinical Pedodontics, Finn Sydney B.
2. TextBook of Pediatric Dentistry, Braham Raymond L.



Scheme of Professional (B.D.S.) Examinations

Examinations shall be conducted to assess whether the candidate has acquired the necessary minimum skill and clear concepts of the fundamentals essential to his day to day professional work.

Examinations shall be held twice in a year.

To inculcate the habit of progressive day to day learning, frequent tests shall be conducted. These tests shall be held at least four times in each year (class) or twice in each semester and 25% of the total marks in each subject theory and practical/ clinical- individually shall be set apart in the professional examination for this.

Maximum Marks and Duration of Examination:

Each subject shall have a maximum of 200 Marks as follows

Theory Practical/ Clinical

University Examination Written 50 75

Orals 25

Internal Assessment 25 25

100 + 100 = 200

- clxi. For a pass the candidate must secure a minimum of 50% marks in the University Examination and 50% marks in the aggregate i.e., University examination and Internal Assessment in each division viz., theory and practical and or clinical separately.
- clxii. First class and Distinction etc. to be awarded by the University as per their respective rules.
- clxiii. Any candidate who fails in one subject in an Examination is permitted to go to the next higher class and appear for the subject and complete it successfully before he can appear for the next higher examination. If semester system is followed, the candidate can carry one subject from one semester to the next semester only, and appear for both semester examinations simultaneously.

Duration of Examination:

Each written paper shall be of 3 hours duration and each Practical/ Clinical examination shall not exceed 3 hours in duration.

Note: Not more than 20 candidates in Clinical or Practicals shall be examined in one day.