Pravara Institute of Medical Sciences

(Deemed University)

Loni Bk - 413 736, Tal. Rahata, Dist. Ahmednagar (MS)

Established Under Section 3 of UGC Act 1956, Vide Govt. of India Notification No.F.9-11/2000-U.3, dated 29th September 2003

Syllabus

BDS

Approved Vide Academic Council Resolution
No. 09 / AC / 2008 dated 12th Sept. 2008.

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Deemed University

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- RURAL MEDICAL COLLEGE
- RURAL DENTAL COLLEGE
- COLLEGE OF PHYSIOTHERAPY
- COLLEGE OF NURSING
- PRAVARA RURAL HOSPITAL
- INSTITUTE OF SOCIAL MEDICINE
- CENTRE FOR BIO-TECHNOLOGY

Ref. No. PDMS/DENTAL/2008/514

Date: 28.02.2008

CIRCULAR

It is hereby notified for the information of all concerned that the Academic Council at it meeting held on 28th January 2008, on the recommendations of Dental Faculty at its meetin held on 10th January 2008 approved the Syllabus of Revised Five Years B.D.S. Course of Bus Year B.D.S, the uniform pattern for conduct of examinations and distribution of marks etc.

Sr. No.	*Subject*	*University Code No.*
1.	General Human Anatomy including Embryology & Histology	DUR-101
2.	General Human Physiology, Biochemistry, Nutrition & Dietics	DUR-102
3.	Dental Anatomy, Embryology & Oral Histology	DUR-103
4.	Dental Material Science	DUR-104
5.	Pre-Clinical Prosthodontics and Crown & Bridge (Practical and Viva-Voce)	DUR-105

The copy of the syllabus is enclosed herewith.

The Principal, RDC is requested to bring the circular to the notice of all HODs, Faculty, Students and Office Staff for implementation.

The above pattern shall be made applicable from the University examinations held in May/June 2008 and onwards.

Registrar

Copy to :

1. The Principal, Rural Dental College – Two copies
2. The Dean, Dental Faculty
3. Controller of Examinations

Syllabi for I BDS

General Human Anatomy including Embryology & Histology (DUR-101)

General Human Physiology, Biochemistry, Nutrition & Dietics (DUR-102)

Dental Anatomy, Embryology & Oral Histology (DUR-103)

Dental Material Science (DUR-104)

(University examination, Theory & Practical to be conducted at the end of 2nd year BDS)

Pre-Clinical Prosthodontics and Crown & Bridge (DUR-105) Practical and Viva-Voce

(To be conducted at the end of 2nd year BDS)

Pravara Institute of Medical Sciences
(Deemed University)

Dental Faculty

Presentation of Syllabus (UG) & Distribution of Marks

Course Code :- .....Title :- .....

Teaching Hours

Theory	:	hours
Practical	:	hours
Total	:	hours

1. **Goal :**
2. **Objectives :**
3. **Theory Syllabus :**

   The total syllabus is to be divided into Units/ Modules / Sections and number of lectures for a particular Unit / Module / Section should be specified.

4. **Practical Syllabus :**

   The clinical, laboratory and practical training should be given in such a way that the total syllabus as specified is covered in detail.

5. **Examination Pattern :**

   A. **University Theory Examination**

   Total Marks : 70 Time : 20 Minutes for MCQs and 2 hours 40 minutes for other questions.

Section A	
MCQs (15) (Note : Booklet containing MCQs shall be in three versions)	15 Marks
Section B	
Long Answer Questions Question No. 1 Question No. 2	 10 Marks 10 Marks
Short answer Questions Question No. 3 Four questions out of six (4 X 5)	 20 Marks
Objective Questions Question No. 4 Five out of Seven (5 X 3)	 15 Marks
Total	70 Marks

B. University Practical Examination

Total Marks : 90

Methodology for practical examination should be specified along with distribution of marks for each component.

C. Internal assessment (Theory)

Marks : 10

Three examinations - 1. At the end of first term

- 2. At the mid of second semester

- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Theory pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 90 minutes per examination

Details of distribution of marks :

Sr. No.	Question	Marks
01	MCQ (10)	10
02	Short notes (5/7)	25

Note : Preliminary examination (third internal assessment) will have pattern similar to final University examination.

D. Practical Internal Assessment Examination

Total Marks : 10

Three examinations - 1. At the end of first term

- 2. At the mid of second semester

- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Practical pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 60 minutes per examination

Details of distribution of marks should be specified.

E. **Theory Viva-Voce Examination**

Marks : 20

The theory viva-voce should be conducted independently by each examiner. In order to avoid vagueness and to maintain uniformity of stand and coverage, questions can be pre-formulated before administering them to each student. Twenty marks are exclusively allotted for viva-voce and that can be divided equally amongst the examiners, i.e., 10 marks per examiner.

6. Books recommended :

(Author/s) Title of Book (Year of publication), Publisher's name

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 101 Title : General Human Anatomy, including Embryology and Histology

Teaching Hours	Theory	: 100 hours
	Practical Demonstrations + Tutorials	} 175 hours
	Total	: 275 hours

Duration : One year

Goals : The broad goal of teaching and training the undergraduate students in Anatomy will be to impart General idea of human body and teach them the anatomical basis of certain important (Life saving) procedures during this period and provide adequate knowledge which are required to carry out general Dental practice involving the prevention, diagnosis and treatment of Anomalies and diseases of the Teeth, Mouth, Jaws and associated tissues.

The students will also be exposed to the applied aspects of Anatomy relevant to Head and Neck in particular and body in general.

Objectives : Objectives are dealt with under three headings : A. Knowledge and understanding, B. Skills and C. Attitudes.

A. **Knowledge and Understanding** :

1. During the course the student should aquire the knowledge of structure of the various regions of the body including their basic functional and clinical correlations.
2. Identify the Microscopic structure of various tissues and organs of the body and to correlate the structure with the functions as a pre-requisite to understanding the pathologic processes in the production of diseases.
3. Anatomy of the reproductive system; developmental anatomy – General and HNF. Anatomical basis of various methods of contraception, and embryological basis of various congenital malformations.
4. Anatomy of various parts of CNS and the interpretation of basics of some common neurological lesions.
5. Identification of structures as seen in plain and contrast radiography of Head and Neck and basic interpretation of cross-sectional anatomy as applied to CT and MRI.

B. Skills :

At the end of the course:

1. Students should be in a position to feel for arterial pulsations- Radial, brachial carotid etc..
2. Know the common vulnerable sites of injury to various nerves.
3. Know common sites of vene puncture – median cubital, Long saphenous vein.
4. Identifications of surface landmarks thereby localize the organs on the surface of the body.
5. Should be able to test the normal functions of various groups of muscles and also some important muscles individually. Should know the common sites of intramuscular injections.

Integration :

1. At the end of the course the candidate should be capable of integrating the knowledge gained during the course with that obtained in Physiology and Biochemistry for the proper understading of functioning of the human body as a whole.
2. Should be able to utilize the knowledge gained during the course in anatomy for properly trying to interpretet and correlate the symptoms and elucidate the signs when seeing the patients in Clinical practice.

Lectures :

1.	General Anatomy	- 10
2.	Head & Neck	- 45
3.	Histology	- 25
4.	Embryology	- 15
5.	Genetics	- 05
	Total	-100

Dissections & Histology Practicals :

1.	Head & Neck	- 80 hours
2.	Histology	- 40 hours
	Total	- 120 hours

Demonstrations :

Lecture Demonstrations -

1. Osteology
2. Radiology
3. Living Anatomy
4. Embryology
5. Tutorials

} 40 hours

6. Abdominal organs
7. Thoracic viscera

} 15 hours

Theory Syllabus :

General Anatomy :

1. Introduction, subdivisions of Anatomy , Anatomical position
2. Anatomical terms
3. General Connective tissue/ cartilage
4. Bones
5. Joints
6. Muscles
7. Blood vessels
8. Lymphoid tissue
9. Skin
10. Nervous system

Gross Anatomy :

Thorax :

1. Introduction to Thorax
2. Lungs – Bronchopulmonary segments.
3. Heart and pericardium
4. Clinical Correlations of the Thorax.

Abdomen and pelvis :

1. Introduction to Abdomen
2. Stomach, Intestine, Caecum and Appendix
3. Liver, Pancreas & Spleen
4. Kidney, Urinary bladder, Ureter.
5. Ovary,Uterus and uterine tube.
6. Testis and spermatic cord.
7. Clinical Correlations of Abdomen and pelvis

Head, Neck & face :

1. Scalp
2. Face
3. Posterior triangle
4. Suboccipital triangle
5. Anterior triangle - Submental, Muscular, Carotid, Digastric.
6. Dural folds
7. Venous sinuses
8. Pituitary, Trigeminal ganglion
9. Thyroid gland and Parathyroid gland

10. Trachea & Oesophagus
11. Subclavian artery
12. Vessels of the neck – Carotid arteries, Internal jugular vein.
13. Cranial nerves
14. Cervical sympathetic chain
15. Cervical plexus
16. Pre & Paravertebral muscles (Scaleni.)
17. Parotid gland
18. Orbit, Lacrimal gland
19. Temporal & Infratemporal region inclusive of maxillary artery, Otic ganglion
20. Temporomandibular joint
21. Submandibular region
22. Oral cavity
23. Pharynx Subdivision - Nasopharynx, Oro (Palatine tonsil) & Laryngopharynx
24. Soft palate, Mechanism of deglutition
25. Eustachian tube
26. Nasal cavity
27. Paranasal air sinuses
28. Maxillary nerve, pterygopalatine ganglion
29. Larynx
30. Tongue
31. External ear, tympanic membrane
32. Middle ear cavity
33. Joints : Atlanto- occipital, and Its .of cervical parts of vertebral column
34. Applied anatomy of each region.

Neuroanatomy :

1. Introduction of nervous system
2. Spinal cord
3. Ascending tract
4. Descending tract
5. Medulla oblongata
6. Pons
7. Midbrain
8. Cerebellum
9. CSF circulation
10. Ventricles of brain
11. Blood supply of brain
12. Sulci & gyri of cerebrum
13. Functional areas of cerebrum
14. White matter- Association,Commisural, Projection fibres
15. Applied anatomy of CNS

Histology :

1. Cell
2. Epithelium
3. Glands
4. Connective tissue
5. Cartilage & Bone
6. Muscles
7. Blood vessels
8. Skin
9. Nervous tissue
10. Respiratory system
11. Endocrine glands
12. Lip, Tooth, Tongue
13. Salivary glands, oesophagus
14. Stomach, Duodenum
15. Small intestine, large intestine, Appendix
16. Liver, Gall bladder, pancreas
17. Kidney, Ureter, Urinary bladder
18. Testis, Epididymis, Vas deferens
19. Prostate, Ovary, Uterus, Uterine tube
20. Ganglion, Lacrimal gland.

Embryology :

General :

1. Introduction, Oogenesis
2. Spermatogenesis
3. Ovary and uterine cycle
4. Fertilization
5. Bilaminar and trilaminar germ disc/primitive streak
6. Intraembryonic mesoderm/Coelom/Somites
7. Formation of folds/umbilical cord
8. Placenta and various anomalies

Systemic :

H.N.& F. :
1. Branchial arches, Ectodermal cleft
2. Pharyngeal pouches and their derivatives
3. Development of tongue
4. Embryological basis of various anomalies.

Genetics :
1. Introduction, Mandel's law of Inheritance.
2. Chromosomal structure/ anomalies/Karyotyping
3. Replication/Transcription and translation
4. Genes and Genetic disorders.
5. Techniques in genetics and Prenatal diagnosis.

Examination Pattern :

A) University Theory Examination :

Total marks : 70.
Time : (03 Hours) : 20 minutes for MCQs and
2 hours and 40 minutes for other questions.

a. Theory Examination :

Anatomy		
Question		Marks
1.	MCQ (15)	15
2.	Long Question (1)	10
3.	Long Question (1)	10
4.	Short notes (4 / 6)	20
5.	Objective (5 / 7)	15
Total		70

b. Practical Examination including Viva-voce :

I. Practical for Terminal examination :

Anatomy				
Spotting (30)			Practical (60)	
Histology slides (10x1)		- 10	Bones	- 15
Bones	(5x1)	- 05	Soft parts (HNF)	- 20
Soft parts	(5x1)	- 05	Radiology + Living Anat.	- 20
Slide viva	(2x5)	- 10	Journal	- 05
Total = 90				

II. Practical for Preliminary and University examination :

Anatomy				
Spotting (30)			Practical (60)	
Histology slides (10x1)		- 10	Bones	- 15
Bones	(5x1)	- 05	Soft parts (HNF)	- 15
Organs	(5x1)	- 05	Organs (Soft parts+ Brain)	- 10
Slide viva	(2x5)	- 10	Radiology + Living Anat.	- 10
			Embryology	- 05
			Journal	- 05
Total = 90				

c. Viva-voce : 20 marks.

B) Internal Assessment (Theory) :

Total marks : 10

Three examinations - One at the end of First term
- Second at the mid of second semester
- Preliminary examination prior to final University exam.

(Note : Preliminary examination will have pattern similar to final University exam.)

Calculation for internal assessment marks :

I Test	*II Test*	*Preliminary*	*Total marks obtained*
35	35	70	$\frac{140}{14} = 10$

C) Practical Internal Assessment Examination :

Total marks : 10

Calculation for internal assessment marks :

I Test	*II Test*	*Preliminary*	*Total marks obtained*
45	45	90	$\frac{180}{18} = 10$

- If marks obtained are 5.1, it will be rounded off to 6
- If marks obtained are 5.9, it will also be rounded off to 6
  (Any fraction to marks will be rounded off to the next figure)

Books Recommended

Textbooks :

Authors	*Title of book*	*Year of ed.*	*Publisher*
B. D. Chaurasia	Textbook of Anatomy Vol. III	2007	C.B.S.
A. K. Datta	Textbook of Anatomy Vol .III	2006	Current Book International
I. B. Singh	Colour Atlas& Textbook of Anatomy Vol- III	4th ed.-2007	Jaypee Brothers

General Anatomy :

Authors	*Title of book*	*Year of ed.*	*Publisher*
G.P.Pal	General Anatomy	1st ed.2005	Peepee Pub.Delhi
B.D. Chaurasia	General Anatomy	3rd ed. 2007	C.B.S.,Delhi

Histology :

Authors	*Title of book*	*Year of ed.*	*Publisher*
I.B.Singh	Human Histology	5th ed. 2007	Jaypee Publication,Delhi
G.P.Pal	Human Histology	2nd ed. 2006	Paras Publication

Embryology:

Authors	*Title of book*	*Year of ed.*	*Publisher*
I.B.Singh & Pal	Human Embryology	8th ed. 2007	Macmillan D.
A.K.Datta	Embryology	4th ed.2002	Current Book International

Neuroanatomy :

Authors	*Title of book*	*Year of ed.*	*Publisher*
A.K.Datta	Human Neuroanatomy	2nd ed. 2005	Current Book International
I.B.Singh	**Human Neuroanatomy**	7th ed. 2007	**Jaypee brothers,delhi**

Reference Books :

Authors	*Title of book*	*Year of ed.*	*Publisher*
Snell	Clinical Neuroanatomy	6th ed. 2005	Lippencott & Williams
	Gray's Anatomy	39th ed. 2004	Elsevier science
	Gray's AnatomyFor Medical Students	1st ed. 2006	Elsevier science
Vishram Singh	Clinical & Surgical Anatomy	2nd ed. 2007	Elsevier science
	Difiore's Atlas of Histology	10th ed. 2007	Lippencott & Williams

Demonstrations :

TOPIC	*H.N.F.*
OSTEOLOGY	11
RADIOLOGY	1
LIVING ANATOMY	1
TOTAL	13

Embryology Models : 05

Pravara Institute of Medical Sciences (D. U.)

[illegible]

Subject : General Human Physiology, Biochemistry and Nutrition & Dietics

Course Code : DUR 102

Section : Biochemistry and Nutrition & Dietetics

Lecture Hours : 70

Practical Hours : 60

Total hours : 130

AIMS AND SCOPE OF THE COURSE IN BIOCHEMISTRY:-

The major aim is to provide a sound but crisp knowldge on the biochemical basis of the life process relevant to the human systém and to dental / medical practice.

1. CHEMISTRY OF BIOORGANIC MOLECULES:

Carbohydrates: Defination, Biological Importance and classificatio. Monosachharides, Isomerism, Anomerism. sugar derivetives, Disachharides. Polysachharides. Structures of starch and glycogen. 04

Lipid:- Defination, Biological Importance and classificatio. Fats ans Fatty acids. Introduction to compound lipids. Hydrophobic and hydrophilic group. *Cholesterol.Bilesalt: Micelle. Bimolecular leaflet.* 03

Proteins:- Biological Importance. Aminoacids : Classificatio. Introduction to peptides. Protein: Simple and conjugated; Globular and fibrus. Charge properties. Buffer action. Introduction to protein confermation: Denaturation 03

Nucleic Acid:- Building Units. Nucleotides. Outline structure of DNA and RNA High enregy compounds: ATP, Phorylamidines, Thiolesters, Enolphosphates. 02

2. MACRONUTERIENTS AND DIGESTION :

Energy Needs:- Basal Metabolic rate. Dietary cabohydrates, Fibers. Dietary Lipids, essencial fatty acid. Nitrogen balance. Essencial amino acid. Protein quality and requirement (Method for evaluation of protein quality to be excluded). Protein calorie malnutriton. 03

Blance diet :- Enzymatic hydrolysis of dietary cabohydrates. Machanism of uptake of monosachharides. Diagestion and absorption of triacylycerols. Anzymatic hydrolysis of dietary proteins and uptake of amino acids. 02

3. MICRONUTRIENTS :

Vitamins : Defination, Classification, Daily requirment, Sources and deficiency symptoms. Brief account of water soluble vitamins with biochemical functions. *Vitamins A functions including visual prosess. Vitamin D and its role in calcium* metabolism. Vitamin E. Vitamin K and Gamma caboxylation. introduction to antivitamins and hypervitaminosis. 05

Minerals : Classification, Daily requirment. Calcium and Phosphate : Source, Uptake excretion, Function. Serum Calcium regulation. Iron : Source, Uptake and 05

transport. Heme and nonheme iron functions, Deficiency. Iodine , Brief introduction to thyroxine synthesis. General functions of thyroxine. Fluroid : Function, Deficiency and excess. Indications of role of other minrals

4. ENERGY METABOLISM :

Overview: outline of glycolysis, Pyruvate oxidation and citric acid cycle. B-oxidation of fatty acids. Electron transport chain and oxidative phosporylation. Ketone body formation utilisation. Introduction to glycogenesis, Glycogenolysis, Fatty acid synthesis, Lipogenesis and lipolysis. Gluconeogenesis. Lactate metabolism. Protein utilisation for energy. Glucogenic and Ketogenic amino acids, Intigration of metabolism. 12

5. SPECIAL ASPECTS OF METABOLISM :

Importance of pentose phosphate pathway. Formation of glucornic acid. Outline of cholesterol synthesis and breakdown. Ammonia Metabolism. Urea formation. Phopocreatine formation transmethylation. Amins. Introduction to other functions of amino acids including one carbon transfer. Detoxication : Typical reactions. Examples of toxic compounds. Oxygen toxicity. 06

6. BIOCHEMICAL GENETICS AND PROTEIN SYNTHESIS :

Introduction to Nucleotides ; Formation and degradiation. DNA as genetic material. Introduction to replication and transcription. Forms and functions of RNA genetic code and Mutation. Outline of translation process. Antimetabolites and antibiotics interfering in replication. Transcription and translation. Introduction to cancer, Viruses and oncogens 05

7. ENZYME AND METABOLIC REGULATION :

Enzymes : Defination, Classification, Specificity and active site. Cofactors. Effect of pH, Teperature and substrate concentration. Introduction to enzyme inhibitors, Proenzymes and isoenzymes. Introduction to allosteric regulation, Covalent modification and regulation by induction / repression. 04

Overview of harmons. introduction to second messengers cyclic AMP, Calcium, Iron, Inositol triphosphate. Mechanism of action of steroid harmons, Epinephrine, Glucagon and Insulin in brief. Acid Base regulation. Electrolyte Balance. 0..

8. STRUCTURAL COMPONANTS AND BLOOD PROTEINS :

Connective tissue: - Collegen and elastin. Glycosaminoglycans. Bone structure. Structure on memmbrans. Memmbrane associated processes in brief. Exosytosis and Endosytosis. Introduction to cytoskeleton. Myofibril and muscle contraction in brief 03

Hemoglobin :- Functions. Introduction to heme synthesis and degradiation. Plasma proteins : Classification and sepretion. function of albumin. A brief account of immunoglobulins. Plasma lipoprotiens: Formation, Function and turnover. 03

9. MADICAL BIOCHEMISTRY :

Regulation of Blood glucose. Daibetic mellitus and related disorders. Evaluation of glycemic status. Hyperthyroidism and Hypothyroidism : Biochemical evaluation. Hyperlipoproteinemias and atherosclerosis, aproches to treatment. Jaundice : Classification and evaluation. Liver function tests : Plasma protein pattern, Serum enzymes levels. Brief introduction to kidneyfunction tests and Gastric Function tests. Acid Base Balance. Electrolyte imbalance : Evaluation. Gout. Examples of genetic disorders including lysosomal storage disorders, glycogen storage disorders, Glucose – 6 – Phosphatase dehydrogenase deficiencies, Hemoglobinopathies, Inborn error of amino acid metabolism and muscular dystrophy (One or two examples with biochemical basis will be adequate). Serum ezymes in daignosis. 06

	PRACTICALS CONTACT HOURS – 50	
1.	Qualitative analysis of carbohydrates.	04
2	Color Reactions of Proteins and Amino Acids	04
3	Identification of Nonprotein Nitrogen substance	04
4	Normal Constituent of Urine	04
5	Abnormal Constituent of Urine	04
6	Analysis of Saliva including Amilase	02
7	Analysis of Milk Quantative estimations	02
8	Titrable Acidity and Ammonia in Urine	02
9	Free and Total Acidity in Gastric Juice	02
10	Blood Glucose Estimation	02
11	Serum Total Protein Estimation	02
12	Urine Creatinine Estimation Demonstration.	02
13	Paper Electrophoresis Charts / Clinical Data Evaluation	02
14	Glucose Tolerance test profiles	02
15	Serum Lipid Profiles	01
16	Profiles of hypothyroidism and Hyperthyroidism	01
17	Profiles of Hyper and Hypoparathyroidiam	01
18	Profiles of Liver Function	01
19	Urea, Uric acid creatinine profile in Kidney Disorders.	01
20	Blood gas profile in Acedosis / Alkalosis.	01

RECOMMENDED BOOKS

Auther	Text Book Title	Year / Edition Publisher
T. N. Pattabiraman	Concise Text Book of Biochemistry	3rd Edition / 2001
Ramakrishan & S. V. Rao	Nutritional Biochemistry	1995
J. K. Kandlish	Lecture Notes in Biochemistry	1984
	REFERENCE BOOKS	
T. N. Devlin	Text boook of Biochemistry with Clinical Coorelation	1997
R. K. Murray et.al	*Harper's Biochemistry*	1996
R. A. D Williams & J. C. Elliot	Basic and applied Dental Biochemistry	1979

HUMAN PHYSIOLOGY

Course Code : DUR – 102
Section : Human Physiology

Lecture Hours : 120
Practical Hours : 60
Total Hours : 180

A) GOAL

The broad goal of the teaching of undergraduate students in physiology aims at providing the student comprehensive knowledge of the normal functions of the organ systems of the body to facilitate an understanding of the physiological basis of health and disease .

B) OBJECTIVES :

a) KNOWLEDGE

At the end of the course, the student will be able to:

1. Explain the normal functioning of all the organ systems and their interactions for well co- ordinated total body function.
2. Assess the relative contribution of each organ systém towards the maintenence of the milieu interior.
3. List the physiological principles underlying the pathogenesis and treatment of disease.

C) SKILLS :

At the end of the course the student shall be able to:

1. Conduct Experiments designed for study of physiological phenomena.
2. Interpret experimental / investigative data.
3. Distinguish between normal & abnormal data derived as a result of tests which he/ she has performed and observed in the laboratory .

D) INTEGRATION:

At the end of the integrated teaching the student shall acquire an integrated knowledge of organ structure and function and its regulatory mechanisms.

E) COURSE CONTENTS : THEORY

1. GENERAL PHYSIOLOGY

1.Homeostasis : Basic concept, Feed back mechanisms
2.Structure of cell membrane, transport across cell membrane
3.Membrane potentials

2. BLOOD

composition &functions of blood :

- Specific gravity, Packed cell volume, factors affecting & methods of determination.
- Plasma proteins – Types, concentration , functions & variations.
- Erythrocyte – Morphology , functions & variations. Erythropoiesis & factors affecting erythropoiesis.
- ESR – Methods of estimation, factors affecting, variations &significance.
- Haemoglobin- Normal concentration, method of determination &variation in concentration.
- Blood Indices- MCV, MCH, MCHC – definition, normal values, variation.
- Anaemia- Definition , Classification, life span of RBC's destruction of RBC's, formation & fate of bile pigments, Jaundice- types.

Leukocytes :

- Classification, number, percentage, distribution morphology , properties, functions &variation. Role of lymphocytes in immunity , leucopoiesis life span & fate of leucocytes.
- Thromobocytes -Morphology, number , variations, function & thrombopoiesis.
- Haemostasis- Role of vasoconstriction, platelet plug formation in haemostasis, coagulation factors, intrinsic & extrinsic pathways of coagulation , clot retraction.
- Tests of haemostatic function, platelet count, cotting time, bleeding time, prothrombin time – normal values, method &variations. Anticoagulants – mechanism of action . Bleeding disorders.
- Blood groups : ABO & Rh system, method of determination , importance, indications & dangers of blood transfusion , blood substitutes.
- Blood Volume: Normal values , variations.
- Body fluids : distribution of total body water, intracellular & extracellular compartments, major anions & cations in intra and extra cellular fluid.
- Tissue fluid & lymph: formation of tissue fluid , composition , circulation & functions of lymph.
- Oedema- causes.
- Functions of reticulo endothelial system.

3. MUSCLE AND NERVE :

- Classification of nerves, structure of skeletal muscle–Molecular mechanism of muscle contraction, neuromuscular transmission.
- Properties of skeletal muscle.
- Structure and properties of cardiac muscle & smooth muscle.

4. DIGESTIVE SYSTEM.

- Introduction to digestion: General structure of G.I. tract, Innervation.

- Salivary glands: Structure of salivary glands, composition, regulation of secretion & functions of saliva.
- Stomach: Composition and functions of gastric juice, mechanism and regulation of gastric secretion .
- Exocrine Pancreas – Structure, composition of pancreatic juice, functions of each component, regulation of pancreatic secretion .
- Liver: structure, composition of bile, functions of bile, regulation of secretion.
- Gall bladder : Structure , functions.
- Small intestine – Composition, functions & regulation of secretion of intestinal juice.
- Large intestine- Functions.
- Motor functions of GIT : Mastication, deglutition, gastric filling & emptying, movements of small and large intestine, defecation.

5. EXCRETORY SYSTEM :

- Structure & functions of kidney, functional unit of kidney & functions of different parts.
- Juxta glomerular apparatus, renal blood flow.
- Formation of Urine : Glomerular filtration rate- definition, determination, normal values, factors influencing G.F.R.
- Tubular reabsorption – Reabsorption of sodium, glucose, water & other substances.
- Tubular secretion – secretion of urea, hydrogen and other substances, Mechanism of concentration & dilution of urine.
- Role of kidney in the regulation of pH of the blood.
- Micturition: anatomy & innervation of Urinary bladder , mechanism of micturition abnormalities.

6. BODY TEMPERATURE & FUNCTIONS OF SKIN

7. ENDOCRINOLOGY

- General endocrinology – Enumeration of endocrine glands & hormones -General functions of endocrine system, chemistry, mechanism of secretion , transport, metabolism, regulation of secretion of hormones.
- Hormones of anterior pituitary & their actions, hypothamic regulation of anterior pituitary function.
- Disorders of secretion of anterior pituitary hormones.
- Posterior pituitary : Functions , regulation & disorders of secretion.
- Thyroid: Histology, synthesis, secretion, & transport of hormones, actions of hormones , regulations of secretion & disorders, Thyroid function tests.
- Adrenal cortex &Medulla – synthesis, secretion, action , metabolism, regulation of secretion of hormones & disorders.
- Other hormones – Angiotensin, A.N.F.

8. REPRODUCTION

- Sex differentiation, Physiological anatomy of male and female sex organs,
- Female reproductive system: Menstrual cycle, functions of ovary, actions of oestrogen.
- Progesterone, control of secretion of ovarian hormones, tests for ovulation, fertilization , implantation, maternal changes during pregnancy, pregnancy tests & parturition.
- Lactation, composition of milk, factors controlling lactation, milk ejection, reflex,
- Male reproductive system: spermatogenesis, semen and contraception.

9. CARDIO VASCULAR SYSTEM

- Functional anatomy and innervation of heart Properties of cardiac muscle
- Origin & propagation of cardiac impulse and heart block.
- Cardiac cycle – Phases , Pressure changes in atria, ventricles & aorta.
- Volume changes in ventricles . Jugular venous pulse, arterial pulse.
- Heart sounds: Mention of murmurs.
- Cardiac output: Definition, normal values, one method of determination, variation, factors affecting heart rate and stroke volume.
- Atrial blood pressure: Definition, normal values & variations, determinants, regulation & measurement of blood pressure.
- Coronary circulation .
- Cardio vascular homeostasis – Exercise & posture.

10. RESPIRATORY SYSTEM

- Physiology of Respiration : External & internal respiration.
- Functional anatomy of respiratory passage & lungs.
- Respiratory movements : Muscles of respiration, Mechanism of inflation & deflation of lungs, Intra pleural & intra pulmonary pressures & their changes during the phases of respiration.
- Mechanics of breathing- surfactant , compliance & work of breathing .
- Spirometry : Lung volumes & capacities definition, normal values, significance, factors affecting vital capacity, variations, in vital capacity, FEV & its variations .
- Pulmonary ventilation – alveolar ventilation & dead space – ventilation.
- Composition of inspired air, alveolar, air and expired air.
- Exchange of gases: Diffusing capacity, factors affecting it.
- Transport of Oxygen & carbon dioxide in the blood.
- Regulation of respiration – neural & chemical.
- Hypoxia, cyanosis, dyspnoea, periodic breathing .
- Artificial respiration , pulmonary function tests.

11. CENTRAL NERVOUS SYSTEM

- Organization of central nervous system
- Neuronal organization at spinal cord level
- Synapse receptors, reflexes , sensations and tracts
- Physiology of pain
- functions of cerebellum, thalamus, hypothalamus and cerebral cortex.
- Formation and functions of CSF
- Autonomic nervous system

12. SPECIAL SENSES

Fundamental knowledge of vision, hearing taste and smell.

PRACTICALS

The following list of practicals is minimum and essential. All practicals have been categorized procedures and demonstration procedures are to be performed by the students during practical classes to acquire skills. All procedures are to be included in the University practical examination. Those categorized as demonstrations would not be included in the University examinations but question based on this would be given in the form of charts, graphs and calculations for interpretation by the students.

SECTION I- HEAMATOLOGY

Sr. No.	Name of the Experiment
01	Study of Microscope
02	Collection of Blood
03	Estimation of the Hemoglobin content of blood
04.	R.B.C. count
05.	Total W.B.C. count
06.	Differential W.B.C. count
07	Determination of Blood Groups
08.	Determination of Bleeding time and Clotting time
09.	Determination of ESR & PCV (D)
10.	Determination of Specific Gravity of Blood
11.	Determination o f Erythrocyte Fragility

SECTION II- HUMAN & CLINICAL PHYSIOLOGY

Sr. No.	Name of the Experiment
01.	Examination of Arterial Pulse
02.	Examination of Arterial Blood Pressure
03.	Spirometry (Demonstration)

SECTION -III CLINICAL PRACTICAL

Sr. No.	Name of the Experiment
01.	Introduction to clinical examination (d)
02.	Cardiovascular system (d)
03.	Respiratory system (d)
04.	Electrocardiography (d)

SECTION IV- AMPHIBIAN EXPERIMENTS

Sr. No.	Name of the Experiment
01	Study of Instruments
02	Simple Muscle Curve (SMC)
03.	Effect of temperature on SMC
04.	Effect of load on moving drum and stationary drum
05	Effect of two successive Stimuli on SMC
06.	Effect of various strengths of Stimuli
07.	Genesis of Tetanus
08.	Phenomenon of Fatigue

Recommended Books

1. Text Books (Latest Editions)

i) A. P. Krishna : Text Book Of Physiology, Third Edition (2004) Alaka, Vasukinagar Bajal, P.O Mangalore - 575 007

ii) S. K. Chaudhari : Concise Medical Physiology, 6th Edition (2008), New Central Book Agency (p) Ltd, Kolkata

iii) A. K. Jain : Human Physiology, Vol - I & II Reprint (2007), A P Company, New Delhi

iv) Chatterjee : Human Physiology, 10th edition, Vol-I & II

v) Berne & Levey : Physiology, 4th edition

2. Reference Books (Latest Editions)

i) A. C. Guyton & J. E. Hall : Text Book of Physiology, 11th Edition (2006), Saunders, Delhi

ii) W. F. Ganong : Review of Medical Physiology, 22nd Edition (2005), M. C. Graw Hill, New Delhi

iii) Vandar : Concise Medical Physiology, 5th edition

iv) J. Bullock, J. Boyle, M.B.Wang: Physiology, 4th Edition (2001), Lippincott Williams & Wilkins, U.S.A.

v) J. J. Bray, P.A. Cragg, A. D. C. Macknight, R. G. Mills : Lecture notes on Human Physiology 4th Edition (1999) / Latest Edition, Black Well Science, U.S.A.

vi) West-Best & Taylor: Physiological Basis of Medical Practice, 11th edition

3. Experimental Physiology:

i) Rannade; Practical Physiology, 4th Edition

ii) Ghai; a text book of practical physiology

iii) Hutchison's; Clinical Methods, 20th edition

iv) A.K. Jain, Manual of Practical Physiology, 2nd Edition 2007, Avichal Publishing Company, New Delhi

First BDS Physiology & Biochemisrty DUR – 102
Theory Pattern

Ist Test

Physiology – Section - A			Biochemisrty – Section B		
Sr. No.	Question	Marks	Sr. No.	Question	Marks
01	MCQ 05	05	01	MCQ 05	05
02	Short Notes 3 / 4	15	02	Short Notes 2 / 3	10
Marks		20	Marks		15
Total Marks – 35					
Time : 90 Min					

IInd Test

Physiology – Section - A			Biochemisrty – Section B		
Sr. No.	Question	Marks	Sr. No.	Question	Marks
01	MCQ 05	05	01	MCQ 05	05
02	Short Notes 2 / 3	10	02	Short Notes 3 / 4	15
Marks:		15	Marks:		20
Total Marks – 35					
Time : 90 Min					

Preliminary and University Examination

Physiology – Section - A			Biochemisrty – Section B		
Sr. No.	Question	Marks	Sr. No.	Question	Marks
01	MCQ 06	06	01	MCQ 9	09
02	LQ (No Option) 1	10	02	LQ (No Option) 1	10
03	Short Notes 2/3	10	03	Short Notes 2/ 3	10
04	Objective Question 3/4	09	04	Objective Question 2/3	06
Marks:		35	Marks:		35
Total Marks – 70					
Time : 3 hours					

First BDS Physiology & Biochemisrty DUR – 102
Practicals Pattern for

Ist Test & IInd Test

Physiology		Biochemisrty	
Question	Marks	Question	Marks
Experiment - 01	20	Experiment - 01	15
Marks	20	Marks	15
Total Marks – 35			
Time : 1 hours		Time : 1 hours	

Preliminary Examination

Physiology			Biochemisrty		
Sr. No.	Question	Marks	Sr. No.	Question	Marks
01	Haematology	20	01	Experiment	15
02	Clinical	20	02	Charts	05
03	Spots	10	03	Record Book	10
04	Record Book	10			
Total Marks		60	Total Marks		30
Time : 2 hours			Time : 1 hour		

University Examination

Physiology			Biochemisrty		
Sr. No.	Question	Marks	Sr. No.	Question	Marks
01	Haematology	20	01	Experiment	15
02	Clinical	20	02	Charts	05
03	Spots	10	03	Record Book	10
04	Record Book	10			
Total Marks		60	Total Marks		30
Viva		12	Viva		05
Time : 2 hours			Time : 1 hour		

Calculation for Internal Assesment Marks

For Theory

I Test	II Test	Preliminary	Total
35	35	70	140

Marks obtained by the student to be converted to out of 10.
Any fraction to marks will be rounded to be next figure.

Calculation for Internal Assesment Marks

For Practicals

I Test	II Test	Preliminary	Total
35	35	90	160

Marks obtained by the student to be converted to out of 10.
Any fraction to marks will be rounded off to the next figure.

* For Repeater students only preliminery examination will be conducted

** No betterment examination.

Schedule of Tests :

Ist Test at the end of first term

IInd Test at the end of January

Preliminary examination in April / May

PRAVARA INSTITUTE OF MEDICAL SCIENCES

(Deemed University)

Loni Bk, Tal- Rahata, Dist- Ahmednagar

DENTAL FACULTY

PRESENTATION OF SYLLABUS

B.D.S. I

Course code	**: DU- 103**
Title	**: Dental Anatomy, Embryology and Oral Histology**
Teaching hours:	Theory : 105 hours
	Practicals : 250 hours
	Total : 355 hours

1. GOAL :

The undergraduate student in the faculty of dentistry for the subject of Dental Anatomy & Oral Histology should acquire adequate knowledge, neccessory skills & reasonable attitute which are required to carry out all activities appropiate to general dental practice.

2. OBJECTIVES :

A. KNOWLEDGE & UNDERSTANDING

Adequete knowledge of development, structures & functions of the teeth, jaws & associated structure and associated anomalies in normal healthy conditions.

B. SKILLS

a) Should be able to carve the normal morphology of human teeth on wax blocks.
b) Should be able to identify microscopic structures of various tooth structures.
c) Should be able to identify type, arch & side of human teeth.
d) Student must know the basic knowledge of various research methodologies.

3. THEORY SYLLABUS :

A. TOOTH MORPHOLOGY

a) Introduction to tooth Morphology.
b) Morphology of deciduous teeth.

c) Morphology of permanent teeth
d) Variations & anomalies commonly seen in individual teeth.
e) Occlusion, Factor affecting occlusion, Clinical significance of normal occlusion, Classification of malocclusion.

B. ORAL EMBRYOLOGY

a) Development of Orofacial structures
b) Development & eruption of deciduous & permanent teeth.
c) Applied aspects

C. ORAL HISTOLOGY

a) Detailed microscopic study of enamel dentin, pulp, cementum, periodontal ligament, alveolar bone & oral mucosa.
b) Salivary Glands
c) Temporomandbular Joint
d) Maxuillary Sinus
e) Processing of hard & soft tissues for microscopic study.

D. ORAL PHYSIOLOGY

a) Saliva
b) Mastication
c) Deglution
d) Calcium, Phosphorus & floride metabolism
e) Theories of mineralisation
f) Physiology of taste.
g) Physiology of speech.

4. PRACTICAL SYLLABUS :

A. DENTAL ANATOMY PRACTICALS

a) Carving of teeth on wax blocks
b) Preservation of carved teeth & to prapare a tooth album
c) Identification of teeth
d) Estimation of approximate age of person by thye study of cast models
e) Preparation of journals

B. DENTAL HISTOLOGY PRACTICALS

a) Study of microscopic slides of enamel, dentin, pulp, cementum, periodontal ligament, alveolar bone & oral mucosa, Salivary glands Temporomandbular Joint, maxuillary Sinus.
b) Histotechniques
c) Sections & Stains
d) Preparation of stains

5. EXAMINATION PATTERN :

A) University Theory Examination :

Total marks : 70
Time : 03 Hours -20 minutes for MCQs and
2 hours & 40 minutes for theory

	Questions	Marks
1.	MCQ (15)	15
2.	Long Question (1)	10
3.	Long Question (1)	10
4.	Short notes (4/ 6)	20
5.	Objective (5/7)	15
	Total	70

B) Internal Assessment (Theory)

Total Marks : 10
03 Examinations - 1st At the end of 1st semester
2nd Exam in second midterm
3rd Preliminery Exam

(The details of distribution of marks are as follows)

a) 1ST & 2ND INTERNAL ASSESSMENT EXAMS (THEORY)

10 MCQs (10 x 1 Mark)	10 Marks
05 SAQs (5 x 2 Marks)	10 Marks
02 LAQs (2 x 10 Marks)	20 Marks
Oral/ Viva	10 Marks
Total	50 Marks

b) PRELIMINARY EXAMINATION (THEORY)

	Questions	Marks
1.	MCQ (15)	15
2.	Long Question (1)	10
3.	Long Question (1)	10
4.	Short notes (4/ 6)	20
5.	Objective (5/7)	15
	Total	70

C) University Practical Examination :

Total Marks : 90

PRACTICAL	
Spotting (10 x 4 Marks)	40 Marks
Carving of tooth	30 Marks
Wax Tooth Album	10 Marks
Journal	10 Marks
Total	90 Marks

PATTERN OF PRACTICAL EXAMINATION WITH MARKS

a) Spotting Slides identifcation - 01 mark
Drawing with labelling - 02 marks
Justification - 01 mark

b) Specimem Identification - 01 mark
Description - 03 marks

c) Carving - 20 marks (Crown)
- 10 marks (root)

D) Practical Internal Assessment Examination :

Total Marks : 10

a) 1ST & 2ND INTERNAL ASSESSMENT EXAMS

PRACTICAL	
Spotting (5 x 5 Marks)	25 Marks
Carving of tooth	20 Marks
Journal	05 Marks
Total	50 Marks

b) PRILIMINARY EXAMINATION

PRACTICAL	
Spotting (10 x 5 Marks)	50 Marks
Carving of tooth	40 Marks
Journal	10 Marks
Total	100 Marks

E) Theory Viva- voce Examination :

Marks : 20

Questions from whole syllabus should be asked.

6. BOOKS RECOMMENDED :

a) Orban's Oral Histology & Embryology	- S N. Bhaskar
b) Oral Development & Histology	- James & Avery
c) Wheeler's Dental Anatomy, Physiology & Occlusion	- Major M. Ash
d) Applied Physiology of mouth	- Lavelle
e) Dental Anatomy, Its relevance to Dentistry	- Wolefel & Scheild
f) Oral Histology	- Ten Cate
g) Physiology & Biochemistry of mouth	- Jenkins

DENTAL FACULTY

PRESENTATION OF SYLLABUS

A – Ist YEAR BDS

Course Code: DUR 104 **Title: Dental Materials**

Teaching Hours – Theory - 20 hours
Practicals – 40 hours
Total – 60 Hours

1. Goals – The science of dental materials emerges as a basic science in itself with its own values and principles. It is to present basic chemical and physical properties of dental materials as they are related to its manipulation to give a sound educational background.

2. Objectives –

1. To understand the evolution and development of science of dental material.
2. To explain purpose of course in dental materials to personnels concerned with the profession of the dentistry. Knowledge of physical and chemical properties.
3. Knowledge of biomechanical requirements of particular restorative procedure. An intelligent compromise of the conflicting as well as co-ordinating factors into the desired Ernest.
4. Laying down standards or specifications of various materials to guide to manufacturers as well as to help professionals.
5. Search for newer and better materials, which may answer our requirements with greater satisfaction. To understand and evaluate the claims made by manufactures of dental materials

3. Theory Syllabus – One class per week

Unit	Topic	Topic Conducted by Dept.	Time duration
1.	**Needs of the course** The profession has to rise from an art to a science, , the need for the dentist to possess adequate knowledge of materials to exercises his best through knowledge of properties of different types of materials. The growing concern of health hazards due to mercury toxicity, inhalation of certain vapour or dust materials, irritations and allergic reaction to skin due to contact of materials. Materials causing irritation of oral tissues, pH of restorative materials causing inflammation and necrosis of pulp which is a cause for the dentist to posses wider knowledge of physical, chemical and biological properties of materials being used. For the protection for the patient and his own protection certain criteria of selection are provided that will enable the dentist to discriminate between facts and propaganda, which will make a material biologically accept.	Prosthodontics	1 hour
2.	**Scope of the Course** The dental materials is employed in mechanical procedures including restorative dentistry such as Prosthodontics, endodontics, periodontal, orthodontics and restorative materials. There is scarcely a dental procedure that does not make use of dental materials in one form or another and therefore the application of dental material is not limited to any one branch of dentistry. Branches such as minor surgery and	Prosthodontics	1 hour

	periodontics require less use of materials but the physical and chemical characters of materials are important in these fields. The toxic and tissue reaction of dental materials and their durability in the oral cavity where the temperature is between 32 & 37 degree centigrade, and the ingestion of hot or cold food ranges from 0-70 degree centigrade. The acid an alkalinity of fluids shown pH varies from 4 to 8.5. The load on 1 sq. mm of tooth or restorative materials can reach to a level as high as many kilograms. Thus the biological properties of dental materials cannot be separated from their physical and chemical properties.		
3.	**Structure of matter and principles of adhesion** Change of state, inter atomic primary bonds, inter atomic secondary bonds, inter atomic bond distance and bonding energy, thermal energy, crystalline structure, non crystalline structures, diffusion, adhesion and bonding and adhesion to tooth structures.	Prosthodontics	2 hours
4.	**Important physical properties applicable to dental materials** Physical properties are based on laws of mechanics, acoustics, optics, thermodynamics, electricity, magnetism, radiation, atomic structure or nuclear phenomena. Hue, value, chroma and translucency physical properties based on laws of optics, dealing with phenomena of light, vision and sight. Thermal conductivity & coefficient of thermal expansion are physical properties based on laws of thermodynamics. Stress, strain, proportional limit, elastic limit yield strength, modulus of elasticity, flexibility, resilience, impact, impact strength, permanent deformation,	Prosthodontics	4 hours

	strength, flexure strength fatigue, static fatigue, toughness, brittleness, ductility & malleability, hardness, abrasion resistance, relaxation, rheology, Thixotropic, creep, static creep, dynamic creep, flow, colour, three dimensional colour – hue, values, chroma, Munsell system, metamersim, fluorescence, physical properties of tooth, stress during mastication		
5.	**Biological considerations** Materials used are with the knowledge of appreciation of certain biological considerations for use in oral cavity. Requirement of materials with biological compatibility. Classification of materials from perspective of biological compatibility. eg. contact with soft tissues, affecting vitality of pulp, used for root canal fillings, affecting hard tissues of teeth, laboratory materials that could be accidentally be inhaled or ingested during handling. Hazards associated with materials: pH-effecting pulp, polymers causing chemical irritation, mercury toxicity, etc. Microleakage, Thermal changes, Galvanism, toxic effect of materials. Biological evaluation for systemic toxicity, skin irritation, mutagenecity and carcinogenicity. Disinfection of dental materials for infection control.	Prosthodontics Conservative	2 hours
6.	**Gypsum and gypsum products** Gypsum – its origin, chemical formula, Products manufactured from gypsum. Dental plaster, Dental stone, Die stone, high strength, high expansion stone. Application and manufacturing procedure of each, macroscopic and microscopic structure of each .	Prosthodontics	4 hours

	Supplied as and Commercial names. Chemistry of setting, setting reaction, theories of setting, gauging water, Microscopic structure of set material. Setting time: working time and setting time, Measurement of setting time and factors controlling setting time . Setting expansion , Hygroscopic setting expansion – factors affecting each Strength :wet strength, dry strength, factors affecting strength, tensile strength Slurry – need and use. Care of cast. ADA classification of gypsum products Description of impression plaster and dental investment Manipulation including recent methods or advanced methods. Disinfection: infection control, liquids, sprays, radiation Method of use of disinfectants Storage of material – shelf life		
7.	**Impression materials** Impression plaster, Impression compound, Zinc oxide eugenol impression paste & bite registration paste incl., non eugenol paste, Hydrocolloids, reversible and irreversible, Elastomeric impression materials. Polysulphide, Condensation silicones, Addition silicones, Polyether, Visible light cure polyether urethane dimethacrylate. Historical background & development of each impression material, Definition of impression, Purpose of making impression, Ideal properties required and application of material, Classification as per ADA	Prosthodontics	4 hours

	specification, general & individual impression material. Application and their uses in different disciplines Marketed as and their commercial names, Mode of supply & mode of application bulk/wash impression. Composition, chemistry of setting ,Control of setting time , Type of impression trays required, Adhesion to tray, manipulation, instruments & equipments required. Techniques of impression, storage of impression, (Compatibility with cast and die material). Any recent advancements in material and mixing devices. Study of properties: Working time, setting time, flow, accuracy, strength, flexibility, tear strength, dimensional stability, compatibility with cast & die materials incl., electroplating Biological properties: tissue reaction , Shelf life & storage of material. Infection control – disinfection Advantages & disadvantages of each material.		

4. Practical Syllabus – Two Practicals per week

Unit	Topic	No. of Practicals
1.	Demonstration of manipulation of various gypsum products	2 practicals
2.	Work done by students to manipulate and handle the various gypsum products	8 practicals
3.	Demonstration of manipulation of various impression materials	2 practicals
4.	Work done by students to manipulate and handle the various impression materials	8 practicals

(Batch I 20 practicals + Batch II 20 practicals – Total 40 practical classes)

5. Examination Pattern

A – No University Theory Examination

B – I[st] Internal assessment Theory

- At the end of I[st] year
- 1 hour paper of maximum 25 marks

Sr. No	Topic	Maximum Marks
1.	5 Questions of 1 marks	5
2.	2 short notes of 5 marks	10
3.	1 Question of 10 marks	10
	Total	**25**

C - No University Practical Examination

D - I[st] Practical Internal assessment Exam

- At the end of I[st] year
- At one of the practical class

Sr. No	Topic	Maximum Marks
1.	One exercise of manipulation of one of the gypsum products	10
2.	One Exercise of manipulation of one of the impression materials	10
3.	Viva Voce	5
	Total	**25**

6. Books recommended

i. Phillips Science of Dental Materials – 10th edn.- Kenneth J. Anusavice

ii. Restorative Dental Materials - 10 edn. Robert G.Craig

iii. Notes on Dental Materials - E.C. Combe

First year B.D.S. Course

Dental Faculty

Presentation Of Syllabus

Course Code: DUR 105 Title: Pre-clinical Prosthodontics, Crown & Bridge-I

Teaching Hours: Theory: - hrs
Practicals: 100 hrs
Total: 100 hrs

Practical Syllabus: Four classes per week.

Unit	Topics	No of Practicals
1.	Demonstration of cast pouring in rubber mould by dental plaster (maxillary and mandibular edentulous moulds) and recovery of the study casts	1
2.	Work done by the student, cast pouring in maxillary and mandibular edentulous rubber moulds by dental plaster and recovery of the study casts	2
3.	Marking of the anatomical landmarks on the maxillary and mandibular edentulous casts (Demonstration)	1
4.	Marking of the anatomical landmarks on the maxillary and mandibular edentulous casts	2
5.	Demonstration of special tray preparation with full spacer and tissue stops on maxillary and mandibular edentulous casts with cold	1

	cure acrylic resin	
6.	Work done by students	2
7.	Demonstration of special tray preparation with spacer on selected areas on maxillary and mandibular edentulous casts with cold cure acrylic.	1
8.	Demonstration of cast pouring in rubber molds in dental stone (Maxillary and mandibular edentulous arches) and recovery of working casts	1
9.	Work done by students	2
10.	Demonstration of shellac base plate adaptation on maxillary and mandibular edentulous working casts	1
11.	Work done by students	2
12.	Demonstration of adaptation of record base on maxillary and mandibular edentulous working casts in cold cure acrylic resin by sprinkle-on method	1
13.	Work done by students	2
14.	Demonstration of preparation of occlusal rims on maxillary and mandibular edentulous working casts with modeling wax and sealing them in Class I relationship	1
15.	Work done by students	2
16.	Demonstration of mounting of sealed maxillary and mandibular occlusal rims to the articulator.	1
17.	Work done by students	2
18.	Demonstration of arrangement of maxillary anterior teeth	1
19.	Work done by students	2
20.	Demonstration of arrangement of mandibular anterior teeth	1
21.	Work done by students	2

22.	Demonstration of arrangement of maxillary posterior teeth	1
23.	Work done by students	2
24.	Demonstration of arrangement of mandibular posterior teeth	1
25.	Work done by students	2
26.	Demonstration of waxing and carving and sealing of the waxed-up denture	1
27.	Work done by students	2
28.	Demonstration of demounting, flasking of the denture	1
29.	Work done by students	2
30.	Demonstration of dewaxing packing and acrylisation of the dentures	1
31.	Work done by students	3
32.	Demonstration of deflasking, trimming, finishing and polishing of the dentures	1
33.	Work done by students	2

Batch I – 50 Practicals + Batch II – 50 Practicals

Total – 100 Practicals

5.Examination Pattern

No University Theory and Practical examination

D - **First internal assessment Practicals only.**

At the end of First year. 1 Practical exercise maxi of 20 marks.

Arrangement of teeth in class I relation with waxing and carving.

E & F – No theory viva and Practical viva voce.

Pravara Institute of Medical Sciences

(Deemed University)
Loni Bk. 413 736, Tal. Rahata, Dist. Ahmednagar, (MS)

Ref. No : PIMS /AC / 2008 / 1316

Date : 25th 11/2008

To,

The Controller of Examinations
Pravara Institute of Medical Sciences,
(Deemed University)
Loni – 413 736.

Sir,

Please find enclosed herewith the following resolutions of the Academic Council held on 12th Sept. 2008 on the recommendations of the respective BOS for your information and further necessary action and implementation : -

Sr. No	Item No.	Resolution No	Subject
1	9	09/AC/2008	Board of Studies in Dentistry Group I to Group IV. A. Five Years BDS course syllabi for II BDS to Vth (final)Year BDS courses to be implemented from August 2008 and onwords up to Vth year BDS course. 1. Syllabi for Second Year BDS course 1. General Pathology & Microbiology (DUR – 201) 2. General & Dental Pharmacolgy and Therapeutics (DUR -202) 3. Dental Materials (DUR – 203) 4. Pre Clinical Conservative Dentistry (DUR – 204) 5. Pre – Clinical Prosthodontics and Crown & Bridge (DUR – 205) 6. Oral Pathology and Oral Microbiology (DUR –206) 2. Syllabi for III BDS Course. 1. General Medicine (DUR – 301) 2. General Surgery (DUR – 302) 3. Oral Pathology & Oral Microbiology II (DUR – 303) 4. Conservative Dentistry & Endodontics (DUR-304)

C/C

The Principal RDC, Loni

The Dean, RDC Loni

The CoE, PIMS Loni

+ Syllabus in Syllabus

Sr. No	Item No.	Resolution No	Subject
			5. Oral & Maxillofacial Surgery (DUR – 305) 6. Oral Medicine & Radiology – I (DUR – 306) 7. Orthodontics & Dentofacial, Orthopaedics - I (DUR -307) 8. Paediatrics & Preventive Dentistry – I (DUR – 308) 9. Periodontology - I (DUR – 309) 10. Prosthodontics & crown & Bridge. (DUR – 310)
			3. Syllabi for IVth Year BDS Course. 1. Orthodontics & Dentofacial, Orthopaedics – II (DUR -401) 2. Oral Medicine & Radiology – II (DUR – 402) 3. Paediatrics & Preventive Dentistry - II (DUR – 403) 4. Periodontology – II (DUR – 404) 5. Oral & Maxillofacial Surgery – II (DUR – 405) 6. Prosthodontics & Crown & Bridge – II (DUR – 406) 7. Conservative Dentistry & Endodontics –II (DUR- 407) 8. Public Health Dentistry -II (DUR – 408)
			4. Syllabi for Vth year BDS Course. 1. Oral & Maxillofacial Surgery – III (DUR – 501) 2. Prosthodontics & Crown & Bridge- III (DUR – 502) 3. Conservative Dentistry & Endodontics – III (DUR– 503) 4. Public Health Dentistry – II (DUR – 504)

I am further to inform you that Academic Council has accepted the recommandations of Board of Studies in Dentistry Gruop I to Gruop IV relating to theory and practical examinations, uniformity in Interanal Assessment test programme, College level viva voce examination for grant of term in the respective subject and minimum requirement (35%) for passing Internal Examination etc. is also enclosed herewith along with resolution of the Academic Council .

Registrar

* Approved syllabus BDS five year course (IInd BDS TO V Th BDS) in Ac meeting 12th Sept 2008.

Pravara Institute of Medical Sciences

(Deemed University)

Loni Bk 413 736, Tal-Rahata, Dist-Ahmednagar (MS)

Dental Faculty

Syllabi for II BDS

General Pathology & Microbiology (DUR 201)

General & Dental Pharmacology and Therapeutics (DUR 202)

Dental Materials (DUR 203)

Pre - Clinical Conservative Dentistry (DUR 204)

Pre- clinical Prosthodontics and Crown & Bridge (DUR 205)

Oral Pathology & Oral Microbiology (DUR 206)

Pravara Institute of Medical Sciences

(Deemed University)

Dental Faculty

Presentation of Syllabus (UG) & Distribution of Marks

Course Code :- .....Title :- .....

Teaching Hours	Theory :	hours
	Practical :	hours
	Total :	hours

1. Goal :
2. Objectives :
3. Theory Syllabus :

   The total syllabus is to be divided into Units/ Modules / Sections and number of lectures for a particular Unit / Module / Section should be specified.

4. Practical Syllabus :

   The clinical, laboratory and practical training should be given in such a way that the total syllabus as specified is covered in detail.

5. Examination Pattern :

   A. University Theory Examination

   Total Marks : 70 Time : 20 Minutes for MCQs and 2 hours 40 minutes for other questions.

Section A	
MCQs (15) (Note : Booklet containing MCQs shall be in three versions)	15 Marks
Section B	
Long Answer Questions Question No. 1 Question No. 2	 10 Marks 10 Marks
Short answer Questions Question No. 3 Four questions out of six (4 X 5)	 20 Marks
Objective Questions Question No. 4 Five out of Seven (5 X 3)	 15 Marks
Total	70 Marks

B. University Practical Examination

Total Marks : 90

Methodology for practical examination should be specified along with distribution of marks for each component.

C. Internal assessment (Theory)

Marks : 10

Three examinations - 1. At the end of first term

- 2. At the mid of second semester

- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Theory pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 90 minutes per examination

Details of distribution of marks :

Sr. No.	Question	Marks
01	MCQ (10)	10
02	Short notes (5/7)	25

Note : Preliminary examination (third internal assessment) will have pattern similar to final University examination.

D. Practical Internal Assessment Examination

Total Marks : 10

Three examinations - 1. At the end of first term

- 2. At the mid of second semester

- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Practical pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 60 minutes per examination

Details of distribution of marks should be specified.

E. **Theory Viva-Voce Examination**

Marks : 20

The theory viva-voce should be conducted independently by each examiner. In order to avoid vagueness and to maintain uniformity of stand and coverage, questions can be pre-formulated before administering them to each student. Twenty marks are exclusively allotted for viva-voce and that can be divided equally amongst the examiners, i.e., 10 marks per examiner.

6. Books recommended :

(Author/s) Title of Book (Year of publication), Publisher's name

PRAVARA INSTITUTE OF MEDICAL SCIENCES (D.U.)

DENTAL FACULTY

Subject	:	General Pathology & Microbiology		
Course Code	:	DUR 201		
Section	:	General Pathology		
Teaching hours	:	110 hrs.		
	:	Theory Lectures	--------	55
	:	Practicals	--------	55

Syllabus:

GENERAL PATHOLOGY

AIM :-

At the end of the course the student should be competent to :
Apply the scientific study of disease processes, which result in morphological and functional alterations in cells, tissues and organs to the study of pathology and the practice of dentistry.

OBJECTIVES :
Enabling the student

1. To demonstrate and apply basic facts, concepts and theories in the field of pathology
2. To recognize and analyze pathological changes at macroscopically and microscopical levels and explain their observations in terms of diseases processes.
3. To integrate knowledge from the basic sciences, clinical medicine and dentistry in the study of pathology.
4. To demonstrate understanding of the capabilities and limitations of morphological pathology in its contribution to medicine, dentistry and biological research.
5. To demonstrate ability to consult resource materials outside lectures, laboratory and tutorial classes.

COURSE CONTENT

A) GENERAL PATHOLOGY -

1. Introduction to pathology
   Terminologies
   The cell in health
   The normal cell structure
   The cellular functions

2. Etiology and pathogenesis of diseases cell injury.
   Types – Congenital
   - Acquired
   Mainly acquired causes of disease (Hypoxic injury, chemical injury, physical injury, immunological injury)
3. Degenerations
   Amylodosis
   Fatly change
   cloudy swaelling
   Hyaline change, mucoid degenerations
4. Cell death & necrosis
   Apoptasis
   Def, causes, features and types of necrosis
   Gangrene – Dry, wet, gas
   Pathological calcifications (Dystrophic and metastatic)
5. Inflammation
   Definition causes types and features
   Acute inflammation
   a. The vascular response
   b. The cellular response
   c. Chemical mediators
   d. The inflamations inflammation
6. Healing
   Regeneration
   Repair
   a. Mechanisms
   b. Healing by primary intention
   c. healing by secondary intention
   d. Factors influencing healing process
   e. Complications
7. Tuberculosis
   Epidemiology
   Pathogenesis (Formation of tubercle)
   Pathogical features of primary and secondary TB
   Complication and Fate
8. Syphilis
   Epidemiology
   Types and stages of syphilis
   Pathological features
   Diagnostic criterias
   Oral lesions
9. Typhoid
   Epidemiology
   Pathogenesis
   Pathological features
   Diagnostic criterias

10. Thrombosis
    Definition, pathophysiology
    Formation, complication & Fate of a thrombus
11. Embolism
    Definition
    Types
    Effects
12. Ischaemia and infraction
    Definition, etiology types
    Infraction of various organs
13. Derangements of body fluids
    Oedema – pathogenesis
    different types
14. Disorders of circulation
    Hyperaemia
    Shock
15. Nutritional disorders
    Common vitamin deficiencies
16. Immunological mechanisms in disease
    Humoral & cellular immunity
    Hypersensitivity & autoimmunity
17. AIDS and Hepatitis
18. Hypertension
    Definition, classification
    Pathophysiology
    Effect in various organs
19. Diabetes mellitus
    Def, classification, Pathogenesis, Pathology in different organs
20. Adaptive disorders of growth
    Atrophy & Hypertrophy, hyperplasia, metaplasia and dysplasia
21. General Aspects of neoplesia
    a. Definition , terminology , classification
    b. Difference between benign and malignant neoplasma
    c. The neoplastic cell
    d. Metastasis
    e. Etiology and pathogenesis of neoplasia, carcinogensis
    f. Tumour biology
    g. Oncogenes and anti oncogenes
    h. diagnosis
    i. Precancerous lesions
    j. Common specific rumours Sq papilloma & Ca, Basal cell ca, adenoma & Adnoca fibroma & fibrosarcoma, Lipoma and liposarcoma

B) SYSTEMIC PATHOLOGY -

22. Anaemias
    Iron deficiency anaemia Megaloblastic anaemia
23. Leukaemias
    Acute and chronic leukaemias diagnosis clinical features

24. Diseases of Lymph nodes
    Hodgkin's diseases, Non Hodgkins lymphoma metastatic carcinoma
25. Diseases of oral cavity
    Lichen planus, stomaitis, leukoplakia, Sq cell ca Dental caries dentigerious cyst ameloblastoma
26. Diseases of salivary glanda
    Normal structure, sialadenitis, Tumours
27. Common diseases of bones
    Osteomyelitis, metablic bone diseases bone tumours osteosarcoma osteocalstoma giant cell Tumour Ewing's sarcoma fibrous dysplasia aneeurysmal bone cyst.
28. Diseases of cardiovascular system
    Cardiac failure
    Congenital heart disease – ASD , VSD, PDA
    Fallot's tetrology
    Infective endocarditis
    Atherosclerosis
    Ischaemic heart diseases
29. Haemorrhagic disorders
    Coagulation cascade
    coagulation disorders
    platelet function
    platelet disorders

PRACTICALS

1. Urine :- Abnormal constitutients
   Sugar, albumin, ketone bodies
2. Urine :- Abnormal consittuents
   Blood bile slats bile pigments
3. Hemoglobin (Hb) estimation
4. Total WBC count
5. Differential WBC count
6. Packed cell volume (PCV) erythrocyte sedimentation Rate (ESR)
7. Bleeding Time & clotting time
8. Histopathology
   Tissue processing
   Staining
9. Histopathology slides
   Acute appendicits, Granulation tissue, fatty liver
10. Histopathology slides
    CVC lung, CVC liver,kidney amyloidosis
11. Histopathology slides
    Tuberculosis Actinomucosis, Rhinosporidiosis
12. Histopathology slides
    Papilloma, Basal cell Ca, Sq, cell Ca
13. Histopathology slides
    Osteosarcoma osteoclastoma fibrosarcoma
14. Histopathology slides
    Malignant melanoma ameloblastoma, adenoma
15. Histopathology slides

Mixed parotid Tumour, metastatic
carcinoma in lymph node

LIST OF TEXT BOOKS

1. Robbins – Pathologic basis of diseases Cotran, Kumar Robbins
2. Anderson's Pathology vol 1 & 2 Editors – Ivan Damjanov & James Linder
3. Wintrobe's clinical Haemotolog Lee, Bithell, Foerster, Anthens Lukens

PRAVARA INSTITUTE OF MEDICAL SCIENCES (D.U.)

DENTAL FACULTY

Subject	:	General Pathology & Microbiology		
Course Code	:	DUR 201		
Section	:	Microbiology		
Teaching hours	:	115 hrs.		
	:	Theory Lectures	--------	65
	:	Practicals	--------	50

Syllabus

MICROBIOLOGY

AIM

To introduce the students to the exciting world of microbes. To make the student aware of various branches of microbiology, importance significance and contribution of each branch to mankind and other fields of medicine. The objectives of teaching microbiology can be achieved by various teaching techniques such as :

a) Lectures
b) Lecture demonstration
c) Practical exercises
d) Audio visual aids
e) Small group discussion with regular feed back from the students

OBJECTIVES

A) KNOWLEDGE AND UNDERSTANDING

At the end of the microbiology course the student is expected to

1. Understand the basics of various branches of microbiology and able to apply the knowledge relevantly
2. Apply the knowledge gained in related medical subject like general medicine and general surgery and Dental subject like oral pathology, community dentistry, periodontics, oral surgery, pedodontics, conservative dentistry and oral medicine in higher classes
3. Understand and practice various methods of sterilization and disinfection in dental clinical
4. Have a sound understanding of various infectious diseases and lesions in the oral cavity

B) SKILLS

1. student should have acquired the skill to diagnose , differentiate various oral lesions.
2. Should be able to select collect and transport clinical specimens to the laboratory
3. Should be able to carry out aseptic procedures in the dental clinic

A brief syllabus of microbiology is given as follows.

A) GENERAL MICROBIOLOGY

1. History introduction scope, aims and objectives
2. Morphology and physiology of bacteria
3. Detail account of sterilization and disinfection
4. Brief account of culture media and culture techniques
5. Basic knowledge section collection transport processing of clinical specimens and identification of bacteria
6. Bacterial genetics and Drug resistance in bacteria

B) IMMUNOLOGY

1. Infection – Definition, Classification, Source, Mode of transmission and types of infectious diseases
2. Immunity
3. Structure and functions of immune system
4. the complement system
5. Antigen
6. immunoglobulins – Antibodies – General structure and the role played in defense mechanism of the body
7. Immune response
8. Antigen – Antibody reaction – with reference with clinical utility
9. Immuno deficiency disorders – a brief knowledge various types Immuno-deficiency disorders- A sound knowledge of Immuno-deficiency disorders relevant to dentistry
10. Hypersensitivity reactions
11. Autoimmune disorders - Basic knowledge of various types sound knowledge of autoimmune disorders of oral cavity and related structures
12. Immunology of Transplantion and malignancy
13. Immuno hematology

C) SYSTEMIC BACTERIOLOGY

1. Pyogenic cocci – Staphylococcus – Streptococcus , Pneumococcus, Gonococcus, Meningococcus, - brief account of each coccus – detailed account of mode of spread laboratory diagnosis, Chemotherapy and prevention – Detailed account of cariogenic streptococcus
2. Corynebacterium diphtheriae – Mode of spread important clinical feature, laboratory diagnosis, chemotherapy and active immunization
3. Mycobacteria – Tuberculosis and leprosy
4. Clostridium – Gas gangrene, food poisoning and tetanus.
5. Non sporing anaerobes – in brief about classification and morphology in detail about dental pathogens mechanism of diseases production and prevention
6. Spirochetes – Treponema pallidum detailed account of oral lesions of syphilis, Borrelia vincentil
7. Actinomycetes.

D) VIROLOGY

1. Introduction
2. General properties, cultivation host virus interaction with special reference to interferon
3. Brief account of laboratory diagnosis chemotherapy and Immuno-prophylaxis in general
4. a few viruses of relevance to dentistry

- Herpes virus
- Hepatitis B virus Brief about other types
- HIV
- Mumps virus
- Brief – measles and rubella virus

5. Bacteriophage – structures and significance

E) MYCOLOGY

1. Brief introduction
2. Candidiasis – in detail
3. Briefly on oral lesions of systemic mycosis.

F) PARASIOTOLOGY

1. Brief introduction – protozoa and helminths
2. Brief knowledge about mode of transmission and prevention of commonly seen parasitic infections in the region

G)PRACTICAL

1. Gram Staining
2. ZN Staining

RECOMMENDED BOOKS OF REGULAR READING

1. Text book of microbiology – R. Ananthanarayan & C.K. Panikar
2. Medical Microbiology – David greenwood etal.

BOOKS FOR FURTHER READING / REFERENCE

1. Topply and Wilson

Evaluation :- General Pathology and Microbiology

A : Methods
Theory, Practical and Viva

Type of Exam	Maximum marks	Minimum Marks
Total Theory	100	50
Theory paper	70	-
Viva voce	20	-
Internal Assessment (Theory)	10	-
Total Practical	**100**	**50**
Practical Exam	90	-
Internal assessment (Practical)	10	

B. INTERNAL ASSESSMENT

Exam	Theory	Practical
1st Tern end	50	40
Mid Term	30	20
Prelim	70	90
Total	150	150
Conversion	10	10

1. 1st Term End

THEORY – 50

Section – A Patho			Section – B Micro		
5	MCQ	5	5	MCQ	5
2/3	SN	10	2/3	SN	10
1	LQ	10	1	LQ	10
		25			25

PRACTICAL – (40)

Patho		Micro	
SPOTS	05	SPOTS	05
EXERCISE	10	EXERCISE	10
VIVA	05	VIVA	05
	20		20

2. 11nd INTERNAL

THEORY - 30

Section – A Patho		Section – B Micro	
5 MCQ	05	5 MCQ	05
2/3 SN	10	2/3 SN	10
	15		15

PRACTICAL - 20

Patho		Micro	
SPOT	10	SPOTS	10
	10		10

3. PRELIMS

THEORY – 70

Section – A Patho			Section – B Micro		
5	MCQ	5	5	MCQ	5
4/5	SN	20	4/5	SN	20
01	LQ	10	01	LQ	10
		35			35

PRACTICAL - 90

Patho		Micro	
SPOT	10	SPOTS	10
1 EXERCISE	20	1 exercise	20
JOURNAL	05	JOURNAL	05
VIVA	10	VIVA	10
	45		45

C. FINAL EXAMINATION

a. Theory

THEORY – 70

Section – A Patho			Section – B Micro		
5	MCQ	5	5	MCQ	5
4/5	SN	20	4/5	SN	20
01	LQ	10	01	LQ	10
		35			35

b. Practical

PRACTICAL - 90

	Patho		Micro
SPOT	20	SPOTS	20
1 EXERCISE	20	1 exercise	20
JOURNAL	05	JOURNAL	05
	45		45
VIVA	10	VIVA	10

PRAVARA INSTITUTE OF MEDICAL SCIENCES

DENTAL FACULTY

PRESENTATION OF SYLLABUS

The syllabus shall be presented in the following format

Course Code : - DU202 Title : PHARMACOLOGY

Teaching Hours Theory : 40 hours
Practical :20hours

Total : 60 hours

1.Goal :

Enable the students to acquire the understanding of Pharmacodynamics ,Pharmacokinetics of drugs ,their therapeutic implication in clinical practice and study of their safety profile.

2.Objectives:

1.To describe the pharmacodynamics ,pharmacokinetics, adverse drug reaction, uses and the principles of drug administration.

2.Describe drugs used on autonomic nervous system and their therapeutic /diagnostic implication in clinical practice.

3.Describe drugs used on cardiovascular system and their therapeutic implication in clinical practice.

4.Describe drugs used on central nervous system and their therapeutic implication in clinical practice.

5.Describe drugs used on respiratory system and their

therapeutic implication in clinical practice.

6.Describe drugs used on renal system and their
therapeutic implication in clinical practice.

7.Describe drugs used on GIT disorders and their
therapeutic implication in clinical practice.

8.Describe drugs used on skin and mucous membrane and their
therapeutic implication in clinical practice.

9.Describe chemotherapy of specific infections & parasitic infestations and their therapeutic implication in clinical practice.

10.Describe drugs used in de-addiction,emergency,deficiency of vitamins and minerals,poisoning,drugs for immunization and immunomodulators and their therapeutic implication in clinical practice.

11.Describe drugs used for hormonal disorders and supplementation, and their therapeutic implication in clinical practice.

12.Describe antiseptics ,disinfectants and insectisides and their
therapeutic implication in clinical practice.

13.Describe the adverse and serious adverse drug reactions,special precautions,indication,contraindication , route of administration of all the above drugs.

THEORY SYLLABUS :

GENERAL PHARMACOLOGY

Nature & sources
Dosage forms
Prescription writing
Pharmacokinetics
Mode of Action
Factors modifying drug action
Adverse drug reaction
Drug interaction
Routes of drug administration

CNS

General Anaesthetics
Hypnosadatives
Analgesics
Psychotropics
Antiepileptics
Analaptics
Local Anaesthetics

ANS-

Sympathomimetic & sympatholytics
Parasympathomimetics
Parasympatholytics
Histamine
Antihistaminics

C.V.S

Cardiac stimulant (cardiac glycosides)
Antiarrhythmic drugs
Antihypertensive drugs
Vasopressors & Treatment of shock
Diuretics

Drug acting on blood –

Coagulants
Anti coagulants
Haematinics

G.I.T.

Anti diarrheals
Antacids
Antiemetics
Purgatives

Endocrine-

Treatment of diabetics
Adrenal carticosteroids

Chemotherapy-

Sulfonamides & cotrimoxazole
Penicillins
Cephalosporins-
Aminoglycosides
Broad spectrum antibiotics
Other antibiotics
Fluroquinolones
Chemotherapy of tuberculosis,leprosy, malignancy
Vitamins & Anti oxidants

Miscellaneous drugs-

Heavy Metal antagonists
Dental Pharmacology & Therapeutic
Antiseptics
Astringents

Obtundant,Mummifying agents
Bleeching agents
Dentifrices & Mouthwashes
Respiratory system and cough and bronchial asthma

PRACTICALS – 20 HOURS DURATION.

1.Prescription writing and weights measois, instruments
2.Antiseptic Mouthwash
3.Obtundant
4.Gum Paint
5.Tooth powder
6.Tooth paste
7.Lotion

b) Display of Trade Market combination Mention

Therapeutic action
Toxic action
Considerations
Indications

1.Criticism & correction of Prescription on basis of drug interaction
2.Drugs of choice

EXAMINATION PATTERN

A) University Theory Examination

Theory (written) Paper :
Total Marks: 70 marks

Time : 20 minutes for MCQ and 2 hours 30 minutes for other question.

Section- A- MCQ (15 Question) 15 marks

Section B

Long answer Question

Question No. 1 10 Marks

Question No. 2 10 Marks

Short Answer Question
Question no.3
Four Questions out of six (4 x5) 20 Marks

Objective Question

Question no.4
Five out of seven (5 x3) 15 Marks

Total 70 Marks
Theory Viva – Voce examination 20 Marks

B) Internal Assessment (Theory)

Marks- 10

Three Examination - one at the end of first semester

Second at the end of second Semester

Preliminary examination,prior to final

University Examination.

(Note: Preliminary examination will have pattern similar to final University examination)

C)University Practical Examination
Total Marks 90 Marks - when only practical examination is conducted .

Methodology for practical examination
Q.1 Pharmacy 25 Marks

Q.2 Correction of wrong prescriptions

a) ---------- 13 Marks

b) ---------- 12 Marks

Q.3. Prescription writing 30 Marks

(3 Medical + 2 Dental conditions)

Q.4 journal 10 marks

Total 90 Marks

D)Practical Internal Assessment Examination

Total Marks 10 Marks

Methodology for practical examination is same as University practical examination pattern

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Total 100 marks

Books Recommended.

Title of Books .Pharmacology and Pharmacotherapeutics.

R.S.SATOSKAR.

S.D.BHANDARKAR

Pharmacological basis of therapeutics.

GOODMAN AND GILMAN

Clinical pharmacology.

LAURENCE.

Essential of medical pharmacology

K.D.TRIPATHI.

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- **DUR 203** Title : Dental Materials

Teaching Hours Theory : 60 lecture hours

Practical 200 practical hours
Demonstrations + Tutorials

Total : 260 Hours

Duration : One year

Theory Syllabus – Three class per week

Unit	Topic	Topic Conducted by Dept.	Time duration
1.	**Synthetic Resin** Historical background and development of material, Denture base materials and their classification and requirement Classification of resins Dental resins – requirements of dental resins, applications, polymerisation, polymerisation mechanism stages in addition polymerisation, inhibition of polymerisation, co polymerization, molecular weight, crosslinking, plastixizers, Physical properties of polymers, polymer structures types of resins.	Prosthodontics	4 hours
2.	**Acrylic resin** Mode of polymerisation: Heat activated, Chemically activated, Light activated Mode of supply, application, composition, Polymerisation reaction of each. Technical considerations: Methods of manipulation for each type of resin.	Prosthodontics	4 hours

	Physical properties of denture base resin Miscellaneous resins & techniques: Repair resins, Relining and rebasing. Short term and long-term soft-liners, temporary crown and bridge resins, Resin impression trays, Tray materials, Resin teeth, materials in maxillofacial prosthesis, Denture cleansers, Infection control in detail, Biological properties and allergic reactions.		
3.	**Restorative resin** Historical background, Resin based restorative materials, Unfilled & filled, Composite restorative materials, Mode of supply, Composition, Polymerisation mechanisms: Chemically activated, Light activated, Dual cure: Degree of conversion, Polymerisation shrinkage Classification of Composites: Application, composition and properties of each Composites of posterior teeth, Prosthodontics resins for veneering. Biocompatibility – microleakage, pulpal reaction, pulpal protection Manipulation of composites: Techniques of insertion of Chemically activated, light activated, dual cure Polymerisation, Finishing and polishing of restoration, Repair of composites Direct bonding Bonding: Need for bonding, Acid - etch technique, Enamel bonding, Dentin bonding agents. Mode of bonding, Bond strength, Sandwich technique its indication and procedure Extended application for composites: Resins for restoring eroded teeth, Pit and fissure sealing, Resin inlays system – Indirect & direct, Core build up, Orthodontic applications.	Conservative	4 hours
4.	**Metal and alloys** Structure and behaviour of metals, Solidification of metals, mechanism of crystallization amorphous & crystalline. Classification of alloys, Solid solutions,	Prosthodontics & Conservative	3 hours 3 hours

	Constitutes or equilibrium phase diagrams:Electric alloys, Physical properties, Peritectic alloys, Solid state reaction other binary systems: Metallography & Heat treatment Tarnish and corrosion Definition, causes of corrosion, protection against corrosion., Corrosion of dental restorations, clinical significance of galvanic current. Dental Amalgam History: Definition of dental amalgam, application, Alloy classification, manufacture of alloy powder composition - available as. Amalgamation : setting reaction & resulting structure , properties , Microleakage Dimensional stability, Strength, Creep, Clinical performance Manipulation: Selection of alloy, proportioning, mechanism of trituration, condensation, carving & finishing. Effect of dimensional changes, Marginal deterioration., Repair of amalgam, mercury toxicity, mercury hygiene.		
5.	**Direct filling gold** Properties of pure gold, mode of adhesion of gold for restoration forms of direct filling gold for using as restorative material Classification: Gold Foil, Electrolytic precipitate, powdered gold. Manipulation: Removal of surface impurities and compaction of direct filling gold. Physical properties of compacted gold, Clinical performance.	Conservative	3 hours
6.	**Dental casting alloys** Historical background, desirable properties of casting alloys. Alternatives to cast metal technology: direct filling gold, amalgam, mercury free condensable intermetallic compound - an alternative to metal casting process.	Prosthodontics Conservative	3 hours 1 hour

	CADCAM process for metal & ceramic inlays - without need of impression of teeth or casting procedure, pure titanium, most bio compatible metal which are difficult to cast can be made into crowns with the aid of CAD-CAM technology . Another method of making copings - by copy milling (without casting procedures). Classification of casting alloys: By function & description. Recent classification , High noble (HN), Noble (N) and predominantly base metal (PB) Alloys for crown & bridge, metal ceramic & removable partial denture. Composition, function, constituents and application, each alloy both noble and base Properties of alloys: Melting range, mechanical properties, hardness, elongation, modulus of elasticity, tarnish and corrosion. Casting shrinkage and compensation of casting shrinkage. Biocompatability - Handling hazards & precautions of base metal alloys, casting investments used. Heat treatment : Softening & hardening heat treatment. Recycling of metals. Titanium alloys & their application , properties & advantages. Technical considerations In casting. Heat source, furnaces.		
7.	**Dental waxes** Introduction and importance of waxes. Sources of natural waxes and their chemical nature. Classification of Waxes: Properties: melting range, thermal expansion, mechanical properties, flow & residual stresses, ductility. Dental Wax: Inlay wax: Mode of supply : Classification & composition, Ideal requirements: Properties of inlay wax: Flow, thermal properties Wax distortion & its causes.	Prosthodontics	4 hours

	Manipulation of inlay wax: Instruments & equipment required, including electrically heated instruments metal tips and thermostatically controlled wax baths. Other waxes: Applications, mode of supply & properties. Casting Wax, Base plate wax, Processing wax, Boxing wax, Utility wax, Sticky wax, Impression wax for corrective impressions, Bite registration wax.		
8.	**Dental casting investment** Definition, requirements, classification Gypsum bonded - classification. Phosphate bonded, Silica bonded Mode of Supply: Composition, application, setting mechanism, setting time & factors controlling Expansions: Setting expansion, Hygroscopic Setting expansion, & thermal expansion: factors affecting. Properties: Strength, porosity, and fineness & storage. Technical considerations: For Casting procedure Preparation of die, Wax pattern, spruing, investing, control of shrinkage compensation, wax burnout, and heating the invested ring, casting. Casting machines, source of heat for melting the alloy. Defects in casting.	Prosthodontics	4 hours
9.	**Soldering, brazing and welding** Need of joining dental appliances Terms & Definition Solders: Definition, ideal requirement, types of solders – Soft & hard and their fusion temperature, application Mode of supply of solders, Composition and selection, Properties. Tarnish & corrosion resistance mechanical properties, microstructure of soldered joint. Fluxes & Anti fluxes: Definition, Function, Types, commonly used fluxes & their selection Technique of Soldering & Brazing: free hand soldering and investment, steps and procedure. Welding: Definition, application, requirements, procedure, weld decay - causes and how to avoid it. Laser welding.	Orthodontics	4 hours

10	**Wrought base metal alloys** Applications and different alloys used mainly for orthodontics purpose 1. Stainless steel 2. Cobalt chromium nickel 3. Nickel titanium 4. Beta titanium Properties required for orthodontic wires, working range, springiness, stiffness, resilience, Formability, ductility, ease of joining, corrosion resistance, stability in oral environment, bio compatibility Stainless steels: Description, type, composition & properties of each type. Sensitisation & stabilisation , Mechanical properties – strength, tensile, yield strength, KHN. Braided & twisted wires their need, Solders for stainless steel, Fluxes, Welding 1. Wrought cobalt chromium nickel alloys, composition, allocation, properties, heat treatment, physical properties 2. Nickel – Titanium alloys, shape, memory & super elastic 3. Titanium alloys, application, composition, properties, welding, Corrosion resistance	Prosthodontics	4 hours
11	**Dental cements** Definition & Ideal requirements: Cements: Silicate, Glass ionomer, metal modified glass ionomer, resin modified glass ionomer, zinc oxide eugenol, modified zinc oxide eugenol, zinc phosphate, zinc silicophosphate, zinc poly carboxylate Cavity liners and cement bases Varnishes Calcium hydroxide Gutta percha Application, classification (general and individual), setting mechanism, mode of supply, Properties, factors affecting setting, special emphasis on critical procedures of manipulation and protection of cement, mode of adhesion, biomechansim of caries inhibition. Agents for pulpal protection., Modifications and recent	Conservative	4 hours

	advances, Principles of cementation. Special emphasis on cavity liners and cement bases and luting agents.		
12	**Dental ceramics** Historical background & General applications. Dental ceramics: definition, classification, application, mode of supply, manufacturing procedure, methods of strengthening. Properties of fused ceramic: Strength and factors affecting, modulus of elasticity, surface hardness, wear resistance, thermal properties, specific gravity, chemical stability, esthetic properties, biocompatability, technical considerations. Metal Ceramics (PFM): Alloys - Types and composition of alloys Ceramic - Type and Composition. Metal Ceramic Bond - Nature of bond. Bonding using electro deposition, foil copings, bonded platinum foil, swaged gold alloy foil coping. Technical considerations for porcelain and porcelain fused metal restorations. Recent advances - all porcelain restorations, Manganese core, injection moulded, castable ceramics, glass infiltrated alumina core ceramic (In ceram), ceramic veners, inlays and onlays, and CAD - CAM ceramic. Chemical attack of ceramic by fluoride. Porcelain furnaces.	Prosthodontics	4 hours
13	**Abrasion and polishing agents** Definition of abrasion and polishing Need of abrasion and polishing Types of abrasives: Finishing, polishing & cleaning Types of abrasives: Diamond, Emery, aluminium oxides garnet, pumice, Kieselgurh, tripoli, rouge, tin oxide, chalk, chromic oxide, sand, carbides, diamond, zirconium, silicate Zinc oxide	Prosthodontics	1 hour
14	**Abrasive action** Desirable characteristics of an abrasive, Rate of abrasion, Size of particle, pressure and speed.	Prosthodontics	1 hour

	Grading of abrasive & polishing agents. Binder, Polishing materials & procedures used. Technical consideration - Material and procedure used for abrasion and polishing Electrolytic polishing and burnishing.		
15	**Die and Counter** Types – Gypsum products, Electroforming, Epoxy resin, Amalgam.	Prosthodontics	3 hours
16	**Dental implants** Evolution of dental implants, types and materials.	Prosthodontics	4 hours
17	**Mechanism of cutting** At the end of the course the student should have the knowledge about the composition, properties, manipulative techniques and their various commercial names. The student should also acquire skills to select and use the materials appropriately for laboratory and clinical use.	Conservative	2 hours

Practical Syllabus – 6 Practicals per week

Unit	Topic	No. of Practicals
5.	Demonstration on acrylic resin	2 practicals
6.	Work done by students on various acrylic resins	10 practicals
7.	Demonstration of acrylic resins	2 practicals
8.	Metal and alloys demonstration	2 practicals
9.	Work done by students on Metal and alloys demonstration	10 practicals
10	Demonstration on casting alloys	2 practicals
11	Demonstration on dental waxes	2 practicals
12	Work on dental waxes by students	10 practicals
13	Dental casting investments demonstration	2 practicals
14	Soldering and welding demonstration	2 practicals
15	Wrought alloys demonstration	2 practicals

16.	Work on wrought alloys	10 practicals
17.	Dental cements demonstration	2 practicals
18.	Work on dental cements	10 practicals
19.	Dental ceramics demonstration	2 practicals
20.	Abrasion and polishing agents demonstration	2 practicals
21.	Work by students - Abrasion and polishing agents	10 practicals
22.	Die and counter die demonstration	2 practicals
23.	Dental implants demonstration	2 practicals
24.	Mechanics of cutting demonstration	2 practicals
25.	Work done by students on Mechanics of cutting	10 practicals

(Batch I 100 practicals + Batch II 100 practicals = 200 practicals)

II[nd] Internal assessment Theory

- At the end of I[st] term of II[nd] year
- 1 hour paper of maximum 25 marks

Sr. No	Topic	Maximum Marks
1.	5 Questions of 1 marks	5
2.	2 short notes of 5 marks	10
3.	1 Question of 10 marks	10
	Total	25

II[nd] Practical Internal assessment Exam

- At the end of I[st] term of II[nd] year

Sr. No	Topic	Maximum Marks
1.	One exercise of manipulation of prostho	10

	material	
2.	One Exercise of manipulation of conservative material	10
3.	Viva Voce	5
	Total	25

III[rd] Internal assessment Theory

- At the end of II[nd] term of II[nd] year
- 3 hours paper of maximum 70 marks
- Part A – 35 marks – prostho topics Part B – 35 marks – conservative and ortho topics

Sr. No	Topic	Maximum Marks
1.	5 + 5 Questions of 1 marks	10
2.	4 + 4 short notes of 5 marks	40
3.	1 + 1 Question of 10 marks	20
	Total	70

III[rd] Practical Internal assessment Exam At the end of II[nd] term of II[nd] year

Sr. No	Topic	Maximum Marks
1.	20 spotters of 1 mark	20
2.	2 prostho material manipulation	20
3.	2 conservative material manipulation	20
4.	One cast pouring	5
5.	Viva Voce (10 + 10)	20
6.	Class records	5
	Total	90

5A. University Theory exam

Part A – 35 marks Prostho topics Part B – 35 marks Conservative and ortho topics

Sr. No	Topic	Maximum Marks
1)	5 + 5 Questions of 1 marks	10
2)	4 + 4 short notes of 5 marks	40
3)	1 + 1 Question of 10 marks	20
	Total	70

5C. University Practical exam – 90 marks

20 marks of viva voce to be added to theory

Sr. No	Topic	Maximum Marks
1.	20 spotters of 1 mark	20
2.	2 prostho material manipulation	30
3.	2 conservative material manipulation	30

4.	One cast pouring	5
5.	Class records	5
6.	Viva Voce (10 + 10)	20

Books recommended

i. Phillips Science of Dental Materials – 10th edn.- Kenneth J. Anusavice

ii. Restorative Dental Materials - 10 edn. Robert G.Craig

iii. Notes on Dental Materials - E.C. Combe

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- **DUR 204** Title : Pre-clinical Conservative Dentistry

Teaching Hours	Theory	:	lecture hours
	Practical Demonstrations + Tutorials		practical hours
	Total	**:**	**Hours**

Duration : One year

1) Nomenclature Of Dentition:
   Tooth numbering systems A.D.A. Zsigmondy Palmer and F.D.I. systems.
2) Principles Of Cavity Preparation:
   Steps and nomenclature of cavity preparation classification of cavities, nomenclature of floors angles of cavities.
3) Dental carries:
   Aetiology, classification clinical features, morphological features, microscopic features, clinical diagnosis and sequel of dental caries.
4) Treatment Planning Of Operative Dentistry:
   Detailed clinical examination, radiographic examination, tooth vitality tests, diagnosis and treatment planning, preparation of the case sheet.
5) Gnathological Concepts Of Restoration:
   Physiology of occlusion, normal occlusion, Ideal occlusion, mandibular movements and occlusal analysis. Occlusal rehabilitation and restoration.
6) Aramamentarium For Cavity Preparation:
   General classification of operative instruments, Hand cutting instruments, design formula and sharpening of instruments. Rotary cutting instruments, dental bur, mechanism of cutting, evaluation of hand piece and speed current concepts of rotary cutting procedures. Sterilisation and maintenance of instruments. Basic instrument tray set up.
7) Control Of Operating Filed:
   Light source sterilization filed of operation control of moisture, rubber dam in detail, cotton rolls and anti sialogagues.
8) Amalgam restoration:
   Indication contraindication, physical and mechanical properties, clinical behaviour. Cavity preparation for Class I, II, V and III. Step wise procedure for cavity preparation and restoration. Failure of amalgam restoration.

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 205

Title : **Preclinical Prosthodontics and Crown and Bridge **

Teaching Hours Theory : 25 lecture hours

Practical 200 practical hours
Demonstrations + Tutorials

Total : 225 Hours

Duration : One year

Theory Syllabus – One class per week.

Unit	Topics	No of classes
1.	Objectives of impression making, Theories of impression making anatomical landmarks of maxillary and mandibular edentulous arches and their importance in complete denture construction.	3
2	Ideal requirement of special tray and the various materials used for their fabrication with spacer and without spacer.	2
3	Ideal requirements of temporary denture base and the various materials used for their fabrication	2
4	Ideal requirements of occlusal rim preparation and various materials used for their fabrication.	2
5	Mandibular movements	2
6	Jaw Relation recording	3
7	Teeth selection, identification and various materials used	2
8	Articulators & occlusion	3
9	Arrangement of teeth, waxing and carving.	2
10	Flasking, dewaxing packing and curing and recovery of dentures, trimming and polishing	4

25 Theory classes.

Practical Syllabus: Six classes per week.

Unit	Topics	No of Practicals
34.	Practice of arrangement of teeth in Class I relationship--- 1.	4
35.	Demonstration of arrangement of teeth in Class II relationship	2
36.	Arrangement of teeth in Class II relationship	4
37	Demonstration of arrangement of teeth in Class III relationship	2
38	Arrangement of teeth in Class III relationship	4
39	Practice of arrangement of teeth in Class I relationship.—2	4
40.	Introduction to Removable partial dentures and Kennedy's classification.	1
41.	Designing of Partial dentures	4
42.	Demonstration of fabrication of various clasps in wrought wire	1
43.	Work done by students on clasp bending	2
44.	Demonstration of shellac base plate/ wax pattern adaptation on maxillary and mandibular partially dentulous working casts	2
45.	Work done by students	8
46.	Arrangement of teeth for partially edentulous arches	2
47.	Practice of arrangement of teeth in Class I relationship-- 2	3
48.	Demonstration of flasking for partial dentures	1
49.	Work done by students	2
50.	Dewaxing, packing and curing of partial dentures in heat cure acrylic resin	1
51.	Work done by students	2
52.	Demonstration of finishing and polishing of partial denture	1
53.	Work done by students	2
54.	Practice of teeth arrangement in Class I relationship--- 3	3
55.	Demonstration of repair of fractured denture	1
56.	Work done by students	2
57.	Demonstration of relining of denture	1
58.	Practice of teeth arrangement in Class I relationship -- 4	3
59.	Demonstration of rebasing of denture	1
60.	Practice of arrangement of teeth in Class I relationship---5	3
61.	Practice of arrangement of teeth in Class I relationship. Waxing and carving --- 6	3
62.	Demonstration of crown preparation to receive full veneer crown along with fabrication of wax pattern	1
63.	Work done by students	4
64.	Demonstration of sprue attachment, investing and casting	1

65.	Demonstration of trimming and polishing of casted crown	1
66.	Flasking and dewaxing of the waxed up dentures	2
67.	Packing and curing of the dentures	2
68.	Deflasking trimming finishing and polishing of dentures	2
69.	Practice of arrangement of teeth in Class I relationship --- 7	2
70.	Practice of arrangement of teeth in Class I relationship---- 8	2

II nd practical internal assessment exam

At the end of I st term of II nd year

1 Practical exercise maxi of 20 marks.

Arrangement of teeth in class I relation with waxing and carving.

E & F – No theory viva and Practical viva voce.

III rd practical internal assessment exam

At the end of II nd year

1 Practical exercise maximum marks of 60

Arrangement of teeth in class I relation with waxing and carving.

5C . University Practical Examination:

Sr No	Topics	Maximum Marks
1.	Arrangement of maxillary and mandibular anteriors	20
2.	Arrangement of maxillary and mandibular posteriors	20
3.	Waxing and Carving	10
4	Class Records	10
5.	Viva voce	20

1. Recommended books:
   1) Syllabus of Complete Dentures by Charles Heartwell and Arthur O Rahn
   2) Boucher's Prosthodontic Treatment for Edentulous Patients
   3) Essentials of Complete Denture Prosthodontics – Sheldon Winkler

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 206 Title : Oral Pathology & Oral Microbiology

Teaching Hours Theory : hours

Practical
Demonstrations + Tutorials } hours

Total : hours

Duration : One year

THE SUBJECT OF ORAL PATHOLOGY AND MICROBIOLOGY IS TO BE TAUGHT IN SECOND B.D.S.

The detailed split up of lectures and practicals are as follows:

	LECTURES	*PRACTICALS*	*TOTAL*
IInd BDS	25hrs.	50hrs.	75hrs.
Total	25 hrs.	50hrs.	75hrs.

1.Goals:

The undergraduate student in the the faculty of dentistry for the subject of Oral Pathology & Microbiology should acquire adequate knowledge, neccessory skills & reasonable attitute which are required to diagnose & differentiate between various oral diseases & conditions which are required to carry out activities appropiate to general dental practice.

2.Objectives:

At the end of Oral Pathology & Microbiology course, the student should be able to comprehend -

1) The different types of pathological processes that involve the oral cavity.
2) The manifestations of common diseases,their diagnosis & correlation

with clinical pathological processes.

3) An understanding of the oral manifestations of systemic diseases should help in correlating with the systemic physical signs & laboratory findings.
4) The student should understand the underlying biological principles governing treatment of the oral diseases.
5) The principles of certain basic aspects of Forensic Odontology.

Skills:

1)Microscopic study of common lesions affecting oral tissues through microscopic slides & projection slides.
2) Study of the disease process by surgical specimens.
3) Study of teeth anomalies / polymorphisms through tooth specimens & plaster casts.
4) Microscopic study of plaque pathogens.
5) Study of haematological preparations (blood films) of anaemias & leukemias.
6) Basic exercises in Forensic Odontology such as histological methods age estimation & appearance of teeth in injuries.

Theory Syllabus:

A bird's eye view of the different pathological processes involving the oral cavity & oral cavity involvement in systemic diseases to be brought out. Interrelationship between General Medicine & General Surgery & Oral Pathology to be emphasized.

LECTURES = 25 hrs

Topics tobe covered in 2nd BDS are-

1) Developmental disturbances of teeth, jaws & soft tissues of oral & paraoral region.

2) Dental caries -
- Etiopathogenesis , microbiology, clinical features, diagnosis, histopathology ,immunology, prevention of dental carues & its sequelae.

3) Pulp & Periapical Pathology & Osteomyelitis -
- Etiopathogenesis & interrelationship, clinical features, microbiology, histopathology & radiological features (as appropriate) of pulp & periapical lesions & osteomyelitis.
- Sequelae of periapical abcess – summary of space infections, systemic complications & significance.

4) Microbial infections of oral soft tissues-

- Micribiology, defence mechanisms including immunological aspects, oral manifestations, histopathology & laboratory diagnosis of common bacterial, viral & fungal infections namely:
  a) Bacterial – Tuberculosis, Syphillis, ANUG & its complications- Cancrum Oris.
  b) Viral – Herpes Simplex, Varicella zoster, Measels, Mumps & HIV infection.
  c) Fungal – Candidal infection, Apthous ulcers.

5)Systemic Diseases involving Oral Cavity-

- Brief review & oral manifestations, diagnosis & significance of common Blood, Nutritional, Harmonal & Metabolic diseases of Oral cavity.

6) Healing of Oral wounds & complications – Dry socket.

4.Practical Syllabus:

PRACTICALS = 50hrs.

Topics to be covered in 2nd BDS-

A. To study the microscopic features of various oral diseases like
- Cell & Special Stains
- Dental caries
- Pulp & Periapical Diseases
- Viral, Bacterial & Mycotic Infections.

B. To study plaster models of Developmental Disturbances of teeth & various conditions affecting the oral cavity.

C. To study the Soft tissue Specimens of various conditions affecting the Oral Cavity.

D. Preparation of journals

- Internal Assessment Theory

Total Marks : 10
Three Examinations -
1st exam at the end of 2nd B.D.S.
Second internal assessment examination and Preliminary examination to be conducted in third B.D.S.

The details of distribution of marks are as follows

1. 1ST INTERNAL ASSESSMENT EXAM

THEORY

10MCQs (10 x 1 Mark)	10 Marks
05 SAQs (5 x 2 Marks)	10 Marks)
02 LAQ (2x 10Marks)	20Marks
Oral/ Viva	10Marks
Total	50 Marks

- Practical Internal Assessment Examination
  1. 1st Internal Assessment Examination

PRACTICAL

Spotting	10 x 4 Marks = 40 Marks
a) Microscopic slides	06 x 04 mks = 24 Marks
b) Specimens (hard & soft)	04x 04 mks = 16 Marks
Journal	10 Marks
Total	50 Marks

- E) Theory Viva- voce Examination
  Marks : 10 Marks
  Questions from whole syllabus should be asked.

6. Books Recommonded:

1.A Text Book of Oral Pathology- Shafer,Hine & Levy.
2. Oral Pathology- Clinical Pathologic Correlations- Regeze & Sciubba.
3.Oral Pathology – Soames & Southam.
4. Oral Diseases in the Tropics- Prabhu,Wilson,Johnson & Draftary.
5.Colour Atlas of Oral Pathology- Cawson
6.Oral & Maxillofacial Pathology -Nivelle
7.Cysts Of Oral Region- Shear
8.Contemporary Oral & Maxillofacial Pathology-Philip ,Sapp,Lewis, Eversole, Wysochi
9. Tumors of oral cavity- Lucas
10. Manual of Oral Histology & Oral Pathology- Maji Jose.

Pravara Institute of Medical Sciences
(Deemed University)
Dental Faculty
Loni Bk 413 736, Tal-Rahata, Dist-Ahmednagar (MS)

Syllabi for III BDS

General Medicine (DUR 301)

General Surgery (DUR 302)

Oral Pathology &Oral Microbiology-II (DUR 303)

Conservative Dentistry & Endodontics (DUR 304)

Oral & Maxillofacial Surgery (DUR 305)

Oral Medicine & Radiology – I (DUR 306)

Orthodontics & Dentofacial Orthopaedics - I (DUR 307)

Paediatric & Preventive Dentistry – I (DUR 308)

Periodontology – I (DUR 309)

Prosthodontics and Crown & Bridge (DUR 310)

Pravara Institute of Medical Sciences

(Deemed University)

Dental Faculty

Presentation of Syllabus (UG) & Distribution of Marks

Course Code :- ..... Title :- .....

Teaching Hours

Theory	:	hours
Practical	:	hours
Total	:	hours

1. **Goal :**
2. **Objectives :**
3. **Theory Syllabus :**

   The total syllabus is to be divided into Units/ Modules / Sections and number of lectures for a particular Unit / Module / Section should be specified.

4. **Practical Syllabus :**

   The clinical, laboratory and practical training should be given in such a way that the total syllabus as specified is covered in detail.

5. **Examination Pattern :**

   A. **University Theory Examination**

   Total Marks : 70 Time : 20 Minutes for MCQs and 2 hours 40 minutes for other questions.

Section A	
MCQs (15) (Note : Booklet containing MCQs shall be in three versions)	15 Marks
Section B	
Long Answer Questions Question No. 1 Question No. 2	 10 Marks 10 Marks
Short answer Questions Question No. 3 Four questions out of six (4 X 5)	 20 Marks
Objective Questions Question No. 4 Five out of Seven (5 X 3)	 15 Marks
Total	70 Marks

B. University Practical Examination

Total Marks : 90

Methodology for practical examination should be specified along with distribution of marks for each component.

C. Internal assessment (Theory)

Marks : 10

Three examinations
- 1. At the end of first term
- 2. At the mid of second semester
- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Theory pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 90 minutes per examination

Details of distribution of marks :

Sr. No.	Question	Marks
01	MCQ (10)	10
02	Short notes (5/7)	25

Note : Preliminary examination (third internal assessment) will have pattern similar to final University examination.

D. Practical Internal Assessment Examination

Total Marks : 10

Three examinations
- 1. At the end of first term
- 2. At the mid of second semester

- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Practical pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 60 minutes per examination

Details of distribution of marks should be specified.

E. **Theory Viva-Voce Examination**

Marks : 20

The theory viva-voce should be conducted independently by each examiner. In order to avoid vagueness and to maintain uniformity of stand and coverage, questions can be pre-formulated before administering them to each student. Twenty marks are exclusively allotted for viva-voce and that can be divided equally amongst the examiners, i.e., 10 marks per examiner.

6. Books recommended :

(Author/s) Title of Book (Year of publication), Publisher's name

PRAVARA INSTITUTE OF MEDICAL SCIENCES

(Deemed University)

Loni, Tal- Rahata, Dist- Ahmednagar

Presentation of Syllabus

DENTAL FACULTY

(PRESENTATION OF SYLLABUS)
(B.D.S.)
DEPARTMENT OF GEN MEDICINE

Course code: DUR- 301

Title: General Medicine.

Teaching hours: Theory: Lectures& seminars -

Theory	**-**	**60**
Practicals	**-**	**90**
Total	**-**	**150**

GOALS:

a) To make todays dental surgeon well conversant with all common disease encountered especially with more relevance to disease common with our environmental social and other factors.

b) Also giving emphasis to relevant effects of these in relation to dental practice.

c) Making a student of dental surgery aware about pit fails he may encounter from various diseases and drugs in use.

OBJECTIVES: To make a student of dental surgery competent and confident about overall knowledge of common diseases, investigative modalities treatment and drugs their effects and side effect

THEORY SYLLABUS : Attached as per latest lines of Dental Council of India July 2007 Divisions of modules, number of lectures for each system is a specified in front of the section, thus covering the 60 hours theory syllabus.

CORE TOPICS (Must Know)	COLLATERAL TOPICS (Desirable to Know)	No. of Lectutes
5. RS Pneumonia, COPD, Pulmonary TB, Bronehial asthma	Lung Abscess Pleural effusion Pneumothorax Bronchiectasis Lung cancers.	7
6. Heamatology Anemias, bleeding & clotting disorders, leukemias, lymphomas, agranulocytosis, splenomegaly, oral manifestations of hematologic disorders, generalized Lymphadenopathy.		6
7. Renal System Acute nephritis Nephrotic syndrome	Renal failure	3
8. Nurition Avitaminosis	Balanced diet PEM Avitaminosis	3
9. CNS Facial palsy, facial pain including trigeminal neuraltic epilepsy, headache including migraine.	- Meningitis - Examination of comatuse patient - Examination of cranial nerves.	4
10. Endocrines Diabetes Mellitus Acromegaly, Hypothyoidism, Thyrotoxicosis, Calcium metabolism and parathyroids.	Addison's disease, Cushing's syndrome.	6
11. Critical care Synocope, cardiac arrest, CPR, shock	Ac LVF ARDS	4
12. Revision.		2

Marks – 20 Theree including prelim

Two examinations
- First at the end of first semester -Min 50 Mks
- second at the end of Second Semester -Min 50 Mks
- Third Prelim examination -100 Marks

200 Marks tobe counted to - 20 mks.

c) **University Practical Examination**

Total Marks - 50

Methodology for practical examination should be specified along with distribution of marks for each component.

1. Long case – Marks 25 Proferably from CVS/ GIT.
2. Short case – Marks 15 Any case preferably from CNS only facial Nerve and Trigeminal nerve.

Methhdology :-

1. one long case preloably CVS/GIT. Mrks- 25.
2. one shortcase- Anysystem- CNS only facial nerve, Trigeminal nerve Bells palsy etc.

d) **Practical Internal Assessment Examination**

Total Marks : 10

1. Two internal exams- 1st after 45 hours teaching - 50 Marks
   - 2nd after completion- Prelim exam -50 Marks

   100 Marks to be counted to 10 Marks.

e) **Theory Viva – Voce Examination**

Marks : 10 marks.

6. Books Recommended :

(Author) Title of the Book (Year of publication).
Publishers name

1. Text Books of medicine-Davidsons.
2. API Text books of medicine.
3. Clinical methods medicine- Hutehuisons
4. Clinical medicine- Mc Leods.
5. Clinical medicine- chamberlin.

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- **DUR 302** Title : General Surgery

Teaching Hours	Theory	:	hours
	Practical Demonstrations + Tutorials		hours
	Total	**:**	**hours**

Duration : One year

General Surgery

1. Introduction to surgery, surgery especially related to Oral – Dental surgery, Classification of diseases.

2. Inflammation, soft tissue, Hard tissue causes, varieties sequels and treatment.

3. Infection Acute and Chronic abscess, Carbuncle sinus, Fistula, Ulceration, Gangrene, Cellulitis, Erysepelas, Septicemia, Pyaemie, Toxaemia, Cancrurm Oris, Tuberculosis, Syphilis, Gonorrhea, actinomycosis, Anthrax, and Tetanus. Specific infections.

4. Wounds complications, Treatments, Repairs, Asepsis and Antiseptic measures and procedure with particular referencev to the Oral cavity, Hemorrhage and its treatment medicine Syncope, Shock Collaps, Head injury introduction.

5. Cysts and new growths – Their general consideration with special reference to those occurring in the buccal cavity.

6. Disease of the Lymphatic glands, especially of the neck.

7. Outline of disease of the mouth, lipes, tongue, palate, tonsils and salivary glands.

8. Infections and diseases of the Larynx, Trachestomy.

9. Nervous systém – injury to facial nerves, Paralysis, trigeminal Neuralgia.

10. Principles of surgical treatment, diathermy and radium treatment.

11. Fracture – General Principls of treatment, Diathermy and healing.

12. Cleft lip and Parathyroid.

13.Thyroid and Paeathyroid.

14.Swellings of jaws.

15.Diseassses of arteries and veins.

16.Midline & lateral Swelling in neck

17. Neoplasms General considerations

18. Biopsy

i) Case shect writing and demonstration.

ii) Ward procedure, including wound dressing

Lectures - 40 hours

Clinicals - 90 hours

Total – 130 Hours

Examinatino Theory Paper General Surgery

Maximum Marks :- 150

Section A : MCQ — 20 Marks

Section B : SAQ

1. Tow (2 x 10) L.A.Q — 20 Marks
2. Four Short notes (4 x 5) — 20 Marks

Section C : L.A.Q

Two long answer Questions (2x 10)	20 Marks
Four short notes (4 x 5)	20 Marks
	100 Marks
Oral	25 Marks
Internal Assessment	25 Marks
	50 Marks

100 + 50 = 150 Marks

DU – 311 General — Practical Examinations

Maximum	75 Marks
1. long case	35 Marks
2. Short Case	20 Marks
3. X – ray & Drug	20 Marks
	75 Marks

75 Marks + 25 Marks (Internal Assessment) = 100

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 303 Title : Oral Pathology & Oral Microbiology – II

Teaching Hours Theory : hours

Practical } hours

Demonstrations + Tutorials

Total : hours

Duration : One year

The detailed split up of lectures and practicals are as follows:

	LECTURES	*PRACTICALS*	*TOTAL*
III[rd] BDS	120hrs.	80hrs.	200hrs.

1.Goals:

The undergraduate student in the the faculty of dentistry for the subject of Oral Pathology & Microbiology should acquire adequate knowledge, neccessory skills & reasonable attitute which are required to diagnose & differentiate between various oral diseases & conditions which are required to carry out activities appropiate to general dental practice.

2.Objectives:

At the end of Oral Pathology & Microbiology course, the student should be able to comprehend -

1) The different types of pathological processes that involve the oral cavity.
2) The manifestations of common diseases,their diagnosis & correlation with clinical pathological processes.
3) An understanding of the oral manifestations of systemic diseases should help in correlating with the systemic physical signs & laboratory findings.
4) The student should understand the underlying biological principles governing treatment of the oral diseases.
5) The principles of certain basic aspects of Forensic Odontology.

Skills:

1)Microscopic study of common lesions affecting oral tissues through microscopic slides & projection slides.
2) Study of the disease process by surgical specimens.
3) Study of teeth anomalies / polymorphisms through tooth specimens & plaster casts.
4) Microscopic study of plaque pathogens.
5) Study of haematological preparations (blood films) of anaemias & leukemias.
6) Basic exercises in Forensic Odontology such as histological methods age estimation & appearance of teeth in injuries.

3.Theory Syllabus:

A bird's eye view of the different pathological processes involving the oral cavity & oral cavity involvement in systemic diseases to be brought out. Interrelationship between General Medicine & General Surgery & Oral Pathology to be emphasized.

LECTURES = 120hrs.

Topics tobe covered in 3rd BDS-

1) Periodontal Diseases-
- Etiopathogenesis, microbiology, clinical features, histopathology & radiological features (as appropriate) of gingivitis, gingival enlargement & periodontitis. Basic immunological mechanisms of periodontal disease to be highlightened.

2) Common non-inflammatory diseases involving the jaws-
- Etiopathogenesis, clinical features, radiological & laboratory values in diagnosis of : Fibrous dysplasia, Cherubism, Osteogenesis Imperfecta,Paget's disease, Cleidocranial dysplasia, Rickets, Achondroplasia, Marfan's syndrome & Down's syndrome.

3)Diseases of Tempro-Mandibular Joint -
- Ankylosis, summary of different types of arthritis & other developmental malformations, traumatic injuries & myofacial pain dysfunction syndrome.

4) Cysts of Oral & Paraoral region-
- Classification , etiopathogenesis, clinical features, histopathology, laboratory & radiological features (as appropriate) of Odontogenic cysts, Non-Odontogenic cysts, Pseudocysts of jaws & soft tissue cysts of oral & paraoral region.

5) Tumors of the Oral cavity-

- Classification of Odontogenic, Non-Odontogenic & Salivary Gland tumors. Etiopathogenesis, clinical features, histopathology, radiological features & laboratory diagnosis (as appropraite) of the following common tumors:
  a) Odontogenic Tumors
  b) Non- Odontogenic Tumors
  -Benign
  - Malignant
  c) Salivary gland tumors
  d) Tumours of Disputed origin – Congenital Epulis & Granular Cell Myoblastoma.
  e) Meatstatic tumors – Tumors metastasizing to & from oral cavity & other routes of metastasis.

6) Traumatic,Reactive & Regressive lesions of Oral Cavity-

- Pyogenic & Giant cell granuloma, exostoses Fibrous Hyperplasia, Traumatic ulcers & Traumatic neuroma.
- Attrition, Abrasion, Erosion, Bruxism, Hypercementosis, Dentinal changes, Pulp calcifications & Resorption of teeth.
- Radiation effects of the oral cavity, summary of Physical & Chemical injuries including allergic reactions of the oral cavity.

7) Non neoplastic Salivary Gland Diseases-

- Sialolithiasis, Sialosis, Xerstomia & Ptyalism.

8) Mucocutaneous Lesions-

- Etiopathogenesis,clinical features & histopathology of the following common lesions -
  Lichen Planus, Lupus Erythematosus,Pemphigus & Pemphigoid lesions, Erythema Multiforme, Psoriasis, Scleroderma, Ectodermal Dysplasia, Epidermolysis bullosa & White sponge nevus.

9) Diseases of the Nerve-

- Facial neuralgias- Trigeminal & Glossopharyngeal, VII nerve paralysis, causalagia
- Psychogenic Facial pain & Burning Mouth Syndrome.

10)Pigmentation of Oral & Paraoral region & Discolouration of teeth-
Causes & clinical manifestations.

11) Diseases of Maxillary Sinus-

- Traumatic injuries to sinus, Sinusitis, Cysts & Tumours involving the antrum.

12) A} Oral Precancer – Cancer; Epidemology, etiology , clinical & histopathological features, TNM classification.
Recent advances in diagnosis, management & prevention.
B} Biopsy – Types of Biopsy, value of biopsy, cytology, histochemistry & frozen sections in diagnosis of oral diseases.

13) Principles of Basic Forensic Odontology (Preclinical Forensic Odontology)-

- Introduction, definition,aims & scope.
- Sex & ethenic(racial) differences in tooth morphology & histological age estimation.
- Determination of Sex & Blood groups from buccal mucosa / saliva.
- Dental DNA methods.
- Bite marks, rugae patterns & lip prints.
- Dental importance of poisons & corrosives.
- Overview of forensic medicine & toxicology.

4.Practical Syllabus:

PRACTICALS = 80hrs.

Topics to be covered in 3rd BDS-

A. To study the microscopic features of various oral diseases like

- Cysts (Odontogenic & Non odontogenic) of oral cavity.
- Odontogenic Tumours.
- Non Odontogenic Tumours – Benign & Malignant.
- Tumours of Salivary Glands.
- Oral Precancerous Lesions & Conditions.
- Mucocutaneous lesions.
- Regressive alterations of teeth.

B. To study plaster models of various conditions affecting the oral cavity.
C. To study the Soft tissue Specimens of various conditions affecting the Oral Cavity.
D. Preparation of journals.

5. Examination Pattern:

- University Theory Marks-

University Written Exam	=	70 marks
Viva Vice	=	20 marks
Internal Assessment (written)	=	10 marks
Total	=	100 marks

- University Practical Marks-

University Exam	=	90 marks
Internal Assessment	=	10 marks
Total	=	100 marks

- A) University Theory Examination:

Total Marks : 70
Time :20 mins forMCQs
2 hrs 40 mins for Theory

1. MCQs 15 _____ 15 Marks
2. LAQs Question 1 _____ 10 Marks
   Question 2 _____ 10 Marks
3. SAQs Question No. 3 (Four Questions out of Six)
   (04 x 5 Marks)_____ 20 Marks
   Question No. 4 Objective Questions (Five out of Seven)
   (05 x 3 Marks)_____ 15 Marks

- B) Internal Assessment Theory

Total Marks : 10
Three Examinations -
(1st exam at the end of 2nd B.D.S.)
2nd exam at the end of Ist term of III B.D.S.
s 3rd Preliminery Exam the end of IInd term of III B.D.S.

- The details of distribution of marks are as follows

1. 2ND INTERNAL ASSESSMENT EXAM

THEORY

10MCQs (10 x 1 Mark)	10 Marks
05 SAQs (5 x 2 Marks)	10 Marks
02 LAQ (2x 10Marks)	20 Marks
Oral/ Viva	10Marks
Total	50 Marks

2. PRILIMINARY EXAMINATION

THEORY

20MCQs (20x 1 Mark)	20 Marks
08 SAQs (08x 5 Marks)	40 Marks
02 LAQ (02x 10Marks)	20 Marks
Oral/ Viva	20 Marks
Total	100 Marks

- C)University Practical Examination
  Total Marks : 90 Marks

PRACTICAL

Spotting	14 x 05 marks = 70 Marks
a) Microscopic slides	08 x 05 marks = 40 Mks
b) Specimens (hard & soft)	06 X 05 marks = 30 Mks
Journal	20 Marks
Inernal Assessment	10 Marks
Total	100 Marks

PATTERN OF PRACTICAL EXAMINATION WITH MARKS

1. SPOTTING Slide identification (01 mark), drawing with labelling(03 marks)

& justification(01mark).

2. Specimem Identification (01mark) description (04 marks).

- D) Practical Internal Assessment Examination

1. 2nd Internal Assessment Examination

PRACTICAL

Spotting	10 x 4 Marks = 40 Marks
a) Microscopic slides	06 x 04 mks = 24 Marks
b) Specimens (hard & soft)	04x 04 mks = 16 Marks
Journal	10 Marks
Total	50 Marks

2.Priliminary Examination

PRACTICAL

Spotting	15 x 06 marks = 90 Marks
a) Microscopic slides	09 x 06 marks = 54
b) Specimens (hard & soft)	06 x 06 marks = 36
Journal	10 Marks
Total	100 Marks

- E) Theory Viva- voce Examination
  Marks : 20 Marks
  Questions from whole syllabus should be asked.

6. Books Recommonded:

1.A Text Book of Oral Pathology- Shafer,Hine & Levy.
2. Oral Pathology- Clinical Pathologic Correlations- Regeze & Sciubba.
3.Oral Pathology – Soames & Southam.
4. Oral Diseases in the Tropics- Prabhu,Wilson,Johnson & Draftary.
5.Colour Atlas of Oral Pathology- Cawson
6.Oral & Maxillofacial Pathology -Nivelle
7.Cysts Of Oral Region- Shear
8.Contemporary Oral & Maxillofacial Pathology-Philip Sapp,Lewis, Eversole, Wysochi
9. Tumors of oral cavity- Lucas
10. Manual of Oral Histology & Oral Pathology- Maji Jose.

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 304 Title : Conservative Dentistry & Endodontics

Teaching Hours Theory : hours

Practical hours

Demonstrations + Tutorials

Total : hours

Duration : One year

1) Pulp Protection:
   Liners, varnishes and bases, zinc phosphate, zinc polycarboxylate, zinc oxide eugenol and glass inomer cements.
2) Anterior Restorations:
   Selection of cases, selection of material, step wise procedure, for using restorations, silicate (theory only) glass inomers, composites, including sand witch restorations and bevels of the same with a note on status of the dentine bonding agents.
3) Direct Filling Gold Restorations:
   Types of direct filling gold indications and limitations of cohesive gold. Annealing of gold foil cavity preparation and condensation of gold foils.
4) Endodontics: introduction definition scope and future of endodontics.
5) Clinical diagnostic methods.
6) Emergency endodontic procedures.
7) Pulpal diseases causes, types and treatment.
8) Periapical diseases: acute periapical abscess, acute periodontal abscess phoeix abscess, chronic alveolar abscess granuloma cysts condensing osteits, external resorption.
9) Vital Pulp Therapy: indirect and direct pulp capping pulpotomy different types and medicaments used.
10) Apexogenisis and apexifications or problems of open apex.

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 305 Title : Oral & Maxillofacila Surgery

Teaching Hours Theory : hours

Practical hours

Demonstrations + Tutorials

Total : hours

Duration : One year

Theory:

Oral Surgery Local Anesthesia & General Anesthesia
LOCAL ANAESTHESIA:

1. Introduction
2. Preparation an ideal local anesthesia drug
3. Properties of common local anesthetic drug in use
4. Choice of anesthesia local & general anesthesia
5. Indications & contraindications, advantages & disadvantages of local anesthesia
6. Component of a standard local anesthetic solution & part played by each component
7. How does local anesthesia acts
8. Pre anesthetic medication
9. Technique of infiltration anesthesia. Nerve block anesthesia Symptoms & signs of anesthesia
10. Complications associated with local anesthesia & their management

GENERAL ANESTHESIA:

1. Properties of general anesthetic drugs; drugs commonly used
2. Pre anesthetic preparation of a patient & premedication
3. Evaluation of a patient for general anesthesia
4. Short anesthesia in a dental chair, endotracheal anesthesia, intravenous anesthesia
5. Symptoms & signs of general anesthesia
6. Complications arising during the administration of general anesthesia & 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 anesthesia in the dental chair
7. Complication of tooth extraction & their management

Practical:

1. Sterilization & disinfections
2. Trigeminal nerve
3. Local anesthesia
4. Complications of LA

Lectures:

Anesthesia (local & general)	10	
Exodontia		10
Oral surgery	50	
Total		70

Clinical 360 hrs
Total practical & clinical hrs 430 hrs

TIME (Hrs) IN CLINICAL & PRACTICAL

BDS	CLINICAL	PRACTICAL
III	20HRS	70HRS
	20HRS	70HRS

EXAMINATION PATTERN ORAL SURGERY

Theory:

Section A: MCQ 20 Marks

Section B: SAQ

Ten short notes carrying 4 marks each 40 Marks

Section C: LAQ

Two long answers

Questions (2x20) 40 Marks

100 Marks

Oral : 25 Marks

Internal assessment: 25 Marks

50 Marks

100+50 = 150 marks

Practical Examinations:

Maximum marks 75

Clinical 60 Marks
Chair side oral 15 Marks
75 Marks

75 marks + 25 marks (internal assessment)= 100 marks

Section B: SAQ
Ten short notes carrying 4 marks each 40 Marks

Section C: LAQ
Two long answers
Questions (2x20) 40 Marks
100 Marks

Oral: 25 Marks

Internal assessment : 25 Marks
50 Marks

100 + 50 = 150 marks

Practical examination:

Maximum marks 75

Clinical 60 Marks
Chair side oral 15 Marks
75 Marks

75 marks + 25 marks (internal assessment)= 100 marks

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 306 Title : Oral Medicine & Radiology-I

DEPARTMENT OF

Teaching Hours Theory : 65 hours

Practical } 200hours

Demonstrations + Tutorials

Total : 265 hours

Duration : One year

1) Goals :

Dental graduates during training in the subjects should acquire adequate knowledge, necessary skills and reasonable attitudes which are required for carrying out all activities appropriate to general dental practice involving the prevention, diagnosis and treatment of anomalies and diseases of the teeth , mouth, jaws, and associated tissues.

2) Objectives :

1. To train the students to diagnose the common disorders of orofacial region by clinical examination and with the help of such investigation as may be required and medical management of orofacial disorders with drugs and physical agents.

2) To train the students about the importance, role use and techniques of radiographs / digital radiographs and other imaging methods in diagnosis.

3) The principles of clinical and radiographic of forensic odontology.

Theory Syllabus

Diagnosis, Diagnostic methods & Oral medicine

1) Scope & importance of subject
2) Infections of the Oral & Para oral structures
3) Ulcerative & vesicobullous lesions of oral cavity
4) Red & White lesions of Oral mucosa
5) Pigmentation of oral tissues
6) Diagnosis of caries, disease of pulp, gingiva & periodontium & regressive changes of dentition
7) Developmental abnormalities teeth & jaws
8) Therapeutics—Drugs commonly used in oral medicine
9) Disease of salivary glands
10) Precancerous lesions & conditions
11) Dermatological Disorders with Oral manifestations
12) Methods of diagnosis including special investigations.
13) Foci of Oral infections & their effects on oral health
14) Allergic Disorders

Oral Radiology

1) Scope of the subject & History of origin
2) Physics of radiation
3) Biological effects of radiation
4) Radiation safety & protection measures
5) Principles of image productions
6) Radiographic techniques for Intra oral Radiography
7) Processing of radiographs
8) Radiographic normal anatomical landmarks
9) Faulty radiographs & artifacts
10) Principles of radiographic interpretation
11) Radiographic interpretation of Dental caries ,Gingival & periodontal disease,inflammatory lesions of periapical tissues & jaws

Practicals/ Clinicals

1)Training in scientific & systematic procedure of history taking and examination of the orofacial region.

2)Training in various intraoral radiographic procedures

3) Radiographic Interpretation of Dental caries, gingival & periodontal diseases, inflammatory diseases of periapical tissues & Jaws.

First Internal Assessment examination (Theory& Practicals will be conducted at the end of III year BDS.

Examination pattern

I -- University Examination

A) University theory examination: Total marks 100

University written examination—	70 marks ---	Duration 3hrs
Viva Voce -	20 marks	
Internal assessment	10 marks	

Pattern of Examination

Section A

MCQ (15) ---- 15 marks

Section B

Long answer Questions

Que no 1 10 marks
Que no 2 10 marks

Short notes

Que no 3 (4 x 5) 20 marks

Short Answer Questions :

Que no 4 (5 x 3) 15 marks

Total marks : 70

B) University practical examination Total marks 100

Practical examination	90 marks
Internal assessment	10 marks

Pattern of examination

1) Case history --
Clinical examination ,diagnosis, treatment of a case & chair side viva- 30 marks
2) Taking an IOPA & processing with interpretation ---- 30 marks
3) Interpretation of five clinical slides or radiographs ----- 25 marks
4) Journal ----- 05 marks

Total marks 90 marks

II Internal Assessment examinations:

Total marks -- 10

Three examinations:

First internal assessment	---	50 marks
Second internal assessment	----	50 marks
Third internal assessment	----	100 marks
Total	-----	200 marks

Pattern of theory examination :

First & Second internal assessment –

Total	Written examination + viva
50	40 + 10

MCQ	10x1 =10 marks
SAQ	5x2 = 10marks
Short notes	2x4 = 08 marks
LAQ	2x6 = 12 marks

Third Internal assessment (Preliminary Examination)

Total	Written examination + viva
100	80 + 20
MCQ	20x1 =20 marks
SAQ	10x2 = 20marks
Short notes	4x4 = 16 marks
LAQ	4x6 = 24 marks

Pattern of practical examination :

First & Second internal assessment

Total 50 marks each

Case History --- 20
Radiograph ---- 20
Interpretation of five clinical slides or radiographs -- 10

Third internal examination (Preliminary examination)

Total 100 marks

Case History --- 30
Radiograph ---- 30
Interpretation of five clinical slides or radiographs -- 30
Journal ---- 10
First internal examination at the end of III year
Second internal examination at the end of first semester of fourth year
Third internal examination at the end of Second semester of fourth year

6) Books recommended:

A)Oral diagnosis & oral medicine

1) Burkit -- Oral medicine --- J B Lippincott co
2) Coleman—Principles of oral diagnosis -- Mosby year book
3) Jones --- Oral manifestations of systemic disease—W B Saunders co
4) Mitcheel—Oral diagnosis & Oral medicine

5) Kerr --- Oral diagnosis
6) Miller— Oral diagnosis & Treatment
7) Hutchinson – Clinical methods
8) Shafers -- Oral Pathology
9) Sonis S T Fazio R C -- Principles & practice of oral medicine
10)Wood & Goaz --- Differential Diagnosis of orofacial lesions

B) Oral radiology

1) White & goaz --- Oral radiology-- Mosby year book
2) Weahrman-- Dental radiology--- C V Mosby co
3) Stafne ---- Oral radiographic diagnosis--- W B Saunders Co
4) Eric Whaites— Text book of Oral radiology
5) Langland & Langlais --- Principles of dental Imaging

C) Forensic Odontology

1) Derek H Clark-- Practical forensic odontology--- Butterworth—Heinemann (1992)
2) C Michel Bowers , Gary bell-- Manual of forensic odontology – Forensic PR(1995)

Pravara Institute of Medical Sciences

Dental Faculty

DUR - 307

Presentation of Syllabus

The syllabus shall be presented in the following Format .

Course Code : ---------- Title : Orthodontics & Dentofacial Orthopedic

Teaching hours : Theory : 50 hours

Practical : 200 hours

Total : 250 hours

1. **Goals** Undergraduate program in orthodontics is designed to enable the qualifying dental surgeon to diagnose, analyse & treat common orthodontic problems by preventive, interceptive
2. **Objectives** and corrective orthodontic procedures.

3. **Theory Syllabus :** Copy enclosed

Total syallbus be devided into Units / Modules / Sections and number of lectures for perticular Unit / Module / Section should be specified.

4. **Practical Syllabus :** Copy enclosed.

Details of practical training should be given. Laboratory and Clinical training required to cover the syllabus should be given.

5. **Examination Pattern :**

A) University Theory Examination

Total Marks : 70 Time : 20 minutes for MCQ
and 2 hours 30 minutes
for other Questions.

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1. **MCQs (15)** ---15--- Marks

2. **Long Answer Questions**

Question No. 1 ---10--- Marks

Question No. 2
One out of
two be answered ---10--- Marks

3. **Short Answer Questions**

Question No. 3
Three Questions out of four ---15--- Marks
Question No.4 (Notes)
Three questions out
of four be answered ---15--- Marks

4. **Objectives Questions**

Question No. 5
Five out of seven ---5--- Marks

B). **Internal Assesment (Theory)**

Marks – 10
Two examinations
- one at the end of first semester
- second at the end of Second Semester.

c) **University Practival Examination**
Total Marks - 90

Methodology for practical examination should be specified along with distribution of marks for each component.
5 marks - File (wirebending) 30 - Spotting 90 - model analysis
5 marks - File (analysis) 30 - wirebending

d) **Practical Internal Assesment Examination**
Total Marks : 20 /50

Method to conduct examination for internal assesment should be specified.

e) **Theory Viva – Voce Examination**
Marks : 20 marks.

f) **Practical Viva – Voce Examinations**
Marks : 20 Marks.
Methodology for Viva – Vice be given .

6. Books Recommended :

(Author) Title of the Book (Year of publication).
Publishers name

① William R. Proffit - Contemporary Orthodontics
② White and Gardiner - Orthodontics for dental students
③ Mayers - Handbook of Orthodontics
④ Graber - Orthodontics - Principles and Practice
⑤ C. Philip Adams - Design, Construction & use of Removable Orthodontic Appliances
⑥ M. S. Rani - Removable orthodontic appliances
⑦ Gurkeerat Singh - Textbook of orthodontics

Theory Syllabus

1.Introduction, definition, historical background, aims and objectives of Orthodontics and need for orthodontic care.

2. Growth and development: In general
   - Definition
   - Growth spurts and differential growth
   - Factors influencing growth and development
   - Methods of measuring growth
   - Growth theories
   - Genetic and epigenetic factors in growth
   - Cephalocaudal gradient in growth

3. Morphologic development of craniofacial structures
   - Methods of bone growth
   - Prenatal growth of craniofacial structures
   - Postnatal growth and development of: cranial base, maxilla, mandible, dental arches and occlusion

4. Functional development of dental arches and occlusion
   - Factors influencing
   - Forces of occlusion
   - Wolfe's law of transformation of bone
   - Trajectories of forces

5.Clinical application of growth and development

6. Malocclusion – In general
   - Concept of normal occlusion
   - Definition of normal occlusion
   - Description of different types of dental, skeletal and functional malocclusion

7. Classification of malocclusion

8. Principle, description, advantages and disadvantages of classification of malocclusion by Angle's, Simon's, Lischer's, and Ackerman and Proffit's

9. Normal and abnormal function of stomatognathic system

10. Etiology of malocclusion

11. Diagnosis and diagnostic aids

12.General principles in orthodontic treatment planning of dental and skeletal malocclusion.

13. Anchorage in orthodontics

14. Biomechanical principles in orthodontic tooth movement

15. Preventive orthodontics

16. Interceptive orthodontics
17. Corrective Orthodontics
18. Methods of gaining space in arch
19. Orthodontic appliances
    - removable appliances
    - fixed appliances
    - Extraoral appliances
    - Myofunctional appliances
20. Orthodontic management of cleft lip and palate
21. Principles of surgical orthodontics
22. Principles, differential diagnosis and methods of treatment of
    - Midline diastema
    - Cross bite
    - Open bite
    - Deep bite
    - Spacing
    - Crowding
    - Class II – division 1, division 2
    - Class III malocclusion
23. Retention and relapse

Clinicals and Practicals

Practical training during II year B. D. S.

1. Basic wire bending exercises Gauge 22 or 0.7 mm
   - Straightening of wire
   - Bending of equilateral triangle
   - Bending of a rectangle
   - Bending of a square
   - Bending of a circle
   - Bending of U.V.
2. Construction of clasps (Both sides upper/lower) Gauge 22 or 0.7 mm
   - ¾ Clasp (C-clasp)
   - Full clasp
   - Adam's clasp
   - Triangular clasp

Practical training during III year B. D. S.

1. Construction of springs (on upper both sides) Gauge 24 or 0.5 mm
   - Finger spring
   - Single cantilever spring
   - Double cantilever spring (Z-spring)
   - T-springs on premolars
2. Construction of Canine retractors Gauge 23 or 0.6 mm
   - U-loop canine retractors
   - Helical canine retractor
   - Buccal canine retractor
   - Palatal canine retractor
3. Labial bow Gauge 22 or 0.7 mm
4. Construction of Hawley's appliance
5. Construction of expansion plate

Clinical training during III year B. D. S.

1. Making upper alginate impression
2. Making lower alginate impression
3. Study model preparation

Clinical training during IV year B. D. S.

1. Model analysis
    - Pont's analysis
    - Ashley Howe's analysis
    - Carey's analysis
    - Bolton's analysis
    - Moyer's mixed dentition analysis
2. Case history taking
3. Case discussion
4. Cephalometric tracings
    - Down's analysis
    - Steiner's analysis
    - Tweed's analysis

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 308 Title : Paediatric & Preventive Dentistry-I

DEPARTMENT OF

Teaching Hours Theory : 20 hours

Practical } 70 hours

Demonstrations + Tutorials

Total : 90 hours

Duration : One year

A) THEORY

1. INTRODUCTION TO PEDODONTICS & PREVENTIVE DENTISTRY.

- Definition,. Scope, Objectives and Importance.

2. GROWTH & DEVELOPMENT:

- Importance of study of growth and development in Pedodontics.
- Prenatal and Postnatal factors in growth & development.
- Theories of growth &~ development.
- Development of maxilla and mandible and related age changes.

EVELOPMENT OF OCCLUSION FROM BIRTH THROUGH ADOLESCENCE.

- Study of variations and abnormalities.

ENTAL ANATOMY AND HISTOLOGY:

Development of teeth and associated structures

Eruption and shedding of teeth.

Teething disorders and their management.

Chronology of eruption of teeth.

Differences between deciduous and permanent teeth.

Development of dentition from birth to adolescence.

- Importance of first permanent molar.

ENTAL RADIOLOGY RELATED TO PEDODONTICS.

ORAL SURGICAL PROCEDURES IN CHILDREN.

- Indications and contraindications of extractions of primary and permanent teeth in children.
- Knowledge of Local and General Anesthesia.
- Minor surgical procedures in children.

ORAL MANIFESTATIONS OF SYSTEMIC DISEASES IN CHILDREN

DENTAL CARIES

- Historical background.

Definition, etiology & pathogenesis.

- Caries pattern in primary, young permanent and' permanent teeth in children.
- Rampant caries, early childhood caries and extensive caries

  * Definition, etiology, Pathogenesis, Clinical features, .Complications & Management.

- Role of diet and nutrition in Dental Caries.
- Dietary modifications & Diet counseling.
- Caries activity, tests, caries prediction, caries susceptibility & their clinical

application. .

9. GINGIVAL & PERIODONTAL DISEASES IN CHILDREN.

- Normal gingiva & periodontium in children.
- Definition, aetiology & Pathogenesis.
- Prevention & Management of gingival & Periodontal diseases.

10. PREVENTIVE DENTISTRY:

- Definition.
- Principles & Scope.
- Types of prevention.
- Different preventive measures used in Pediatric Dentistry including pit and fissure Sealants and caries vaccine.

11. FLUORIDES

- Historical background.
- Systemic & Topical fluorides.
- Mechanism of action.
- Toxicity & Management.
- Defluoridation. Techniques.

12. CASE HISTORY RECORDING

- Outline of principles of examination, diagnosis & treatment planning:

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

Presentation of Syllabus

Course Code : **DUR 309**

Title : **Periodontology**

Year of Examination : **Third B.D.S**

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

Presentation of Syllabus

The syllabus shall be presented in the following format,

Course Code : DUR 309 Title : **Periodontology**

TEACHING HOURS : **Theory : 30hours**

Practical : 70 hours

1. GOALS :

a. The dental graduate during training in the institute should acquire adequate knowledge, necessary skills and reasonable attitudes which are required for carrying out all activities appropriate to periodontal dental practice involving the prevention, diagnosis and treatment of anomalies and diseases of teeth and periodontium.

b. The graduate should understand the concept of Periodontology and should be able to participate in the concept of community oral health education and be able to participate in the rural health care delivery programmes existing in the country.

2. OBJECTIVES :

a. The student shall acquire the skill to perform dental scaling, diagnostic tests of periodontal diseases; to use the instruments for periodontal therapy and maintenance of the same.

b. The student shall develop attitude to impart the preventive measures namely, the prevention of periodontal diseases and their progress of disease.

c. The student shall also develop an attitude to perform the treatment with full aseptic precautions; shall develop an attitude to prevent iatrogenic diseases; to conserve the tooth to the maximum possible time by maintaining periodontal health and to refer the patients who require the specialist's treatment.

3. THEORY SYLLABUS :

1. Introduction : Definition of Periodontology, Periodontics, Periodontia, Brief historical background, Scope of Periodontics.

2. Development of periodontal tissues, micro-structural anatomy and biology of periodontal tissues in detail, Gingiva, junctional epithelium, epithelial mesenchymal interaction, periodontal ligament, Cementum and Alveolar bone.

3. Defense mechanism in the oral cavity : Role of epithelium, gingival crevicular fluid, saliva and other defensive mechanism in the oral environment.

4. Age changes in the periodontal structures and their significance in geriatric dentistry : Age changes in teeth and periodontal structures and their association with periodontal diseases.

5. Classification of periodontal diseases : Need for classification, scientific basis for classification

   Classification of gingival and periodontal diseases as described in World Workshop 1989.
   Gingivitis : Plaque associated, ANUG, steroid hormone influenced, medication influenced, desquamative gingivitis, other form of gingivitis as in nutritional deficiency, bacterial and viral infections etc.

   Periodontitis : Adult periodontitis, rapidly progressing periodontitis A & B, juvenile periodontitis (localized, generalized and post juvenile), Prepubertal periodontitis, refractory periodontitis.

6. **Epidemiology of periodontal diseases :**
   - i. Definition of index, classification of indices (Irreversible & reversible).
   - ii. Incidence and prevalence, endemic, epidemic and pandemic
   - iii. Deficiencies of earlier indices used in periodontics
   - iv. Detailed understanding of Silness & Loe plaque index, Loe & Silness Gingival index, CPITN & CPI.
   - v. Prevalence of periodontal diseases in India and other countries.
   - vi. Public health significance (All the topic are covered in detail in the Community Dentistry Hence the topics should be covered in brief however questions may be asked from the topic for examination)

7. **Infection control protocol**
   - Sterilization and various aseptic precautions.

8. **Extension of inflammation from gingiva** : Mechanism of spread of inflammation from gingival area to deeper periodontal structures and factors that modify the spread.

9. **Pocket** : Definitions, signs and symptoms, classifications, pathogenesis, histopathology, root surface changes and contents of pocket.

10. **Etiology :**

i. Dental plaque (Biofilm)

- Definition, new concept of biofilm
- Types, composition, bacterial colonization, growth, maturation and disclosing agents.
- Role of dental plaque in periodontal diseases.
- Plaque microorganisms in detail and bacteria associated with periodontal diseases.
- Plaque retentive factors
- Matera alba
- Food debris

ii. Calculus

- Definition,
- Types, composition, attachment, theories of formation
- Role of calculus in periodontal diseases

iii. Food impaction

- Definition
- Types, etiology,
- Hirshfield's classification
- Signs, symptoms, sequelae and treatment

iv. Risk Factors

- Definition and risk factors for periodontal diseases

11. **Plaque control** :

a. Mechanical - tooth brushes, interdental cleansing aids, dentifrices.

b. Chemical - classification and mechanism of action of each chemical plaque control agents and pocket irrigation.

12. Systemic diseases

- Diabetes, sex hormones, nutrition (Vit C & Proteins)
- AIDS & periodontium
- Hemorrhagic disorders, Leukemia, clotting factor disorders, PMN disorders.

13. Host response

- Mechanism of initiation and progression of periodontal diseases
- Basic concepts about cell, mast cells, neutrophils, macrophages, lymphocytes, immunoglobulins, complement system, immune mechanism & cytokines in brief.
- Stages in gingivitis – initial, early, established and advanced
- Periodontal disease activity, continuous paradigm, random burst & asynchronous multiple burst hypothesis.

14. Periodontitis.

- Etiology, histopathogy, clinical signs and symptoms, diagnosis and treatment of adult periodontitis.
- Periodontal abscess- definition, classification, pathogenesis, differential diagnosis and treatment.
- Furcation involvement- Glickmann's classification, prognosis and management.
- Rapidly progressing periodontitis.
- Juvenile periodontitis (Localized and Generalized)
- Post juvenile periodontitis.
- Periodontitis associated with systemic diseases
- Refractory periodontitis

15. Diagnosis

- Routine procedures
- Methods of probing, Types of probes
- Halitosis – etiology and treatment,

16. Advanced diagnostic aids and their role in brief.

17. Prognosis

- Definition,
- Types, purpose and factors to be taken in to consideration

18. Treatment plan

- Factors to be considered

19. Hypersensitivity

- Causes, Theories and managements

20. Ethics

4 . PRACTICAL SYLLABUS :

Requirements :

Sr. No.	Work to be done	Quota
01	Diagnosis, treatment planning, discussion and total periodontal treatment (Case History)	05 cases
02	Scaling and oral hygiene instructions	20 completed cases/ or equivalent

*Note : **Work record should be maintained by all the students and should be submitted at the time of examination after due certification from the head of the department.**

DEMONSTRATIONS :

a. History taking and clinical examination of patients
b. Recording different indices
c. Methods of using various scaling and surgical instruments
d. Polishing the teeth
e. Demonstration to patients about different oral hygiene aids

TUTORIALS TO BE COMPLETED DURING CLINICAL POSTING

a. Infection control
b. Periodontal instruments
c. Chair position and principles of instrumentation
d. Maintenance of instruments (Sharpening)
e. Ultrasonic, piezo-electric and sonic scaling- demonstration of technique.
f. Diagnosis of periodontal disease and determination of prognosis
g. Radiographic interpretation and lab investigations
h. Motivation of patient - oral hygiene instruction.

5. EXAMIANTION PATTERN :

A . University theory examination

Appearing for university examination in IV B.D.S

B. Internal Assessment (Theory) 10 Marks

Three internal Assessment examinations to be conducted in IV B.D.S:

C. University Practical Examination

In IV B.D.S. (Total marks : 90)

D. Practical Internal Assessment Total Marks : 10

Three internal Assessment examinations to be conducted :

- First exam at the end of III B.D.S. clinical posting Marks : 25

(Second & Third Internal Examinations to be conducted in IV B.D.S.)

Sr. No.	Work done	Marks allotted
1	Diagnosis, treatment planning, discussion (Case History)	10
2	Scaling, root planing , Chair side discussion & instrumentation	15
	Total marks	25

6. BOOKS RECOMMENDED :

Sr. No.	Title of book	Author
Basic books		
01	Glickman's Clinical Periodontology (9^{th} & 10^{th} Edition)	Carranza
Reference books		
01	Essentials Of Periodontology And Periodontics	Torquil Mac Phee
02	Contemporary Periodontics	Cohen
03	Periodontal Therapy	Goldman
04	Orban's Periodontics	Orban
05	Oral Health Survey	W.H.O.
06	Preventive Periodontics	Young And Stiffler
07	Public Health Dentistry	Forrest
08	Advanced Periodontal Disease	John Prichard
09	Preventive Dentistry	Forrest
10	Clinical Periodontology	Jan Lindhe
11	Periodontics	Baer And Morris
12	Community Dentistry	Soben Peter

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 310 Title : Prosthodontic & Crown & Bridge

DEPARTMENT OF

Teaching Hours	Theory	: 30	hours
	Practical	70	hours
	Demonstrations + Tutorials		
	Total	: 100	hours

Duration : One year

Theory Syllabus: 1 Class per week.

Unit	Topics	No of Classes
1.	Applied Anatomy and Physiology. 1. Introduction 2. Biomechanics of the edentulous state. 3. Residual ridge resorption.	1
2.	Communicating with the patient 1. Understanding the patients mental attitude. 2. Instructing the patient.	1
3.	Diagnosis and treatment planning for patients- 1. With some teeth remaining. 2. With no teeth remaining. a) Systemic status. b) Local factor. c) The geriatric patient. d) Diagnostic procedures.	2
4.	Articulators- discussion	2
5.	Improving the patient's denture foundation and ridge relation -an overview. a) Pre-operative examination. b) Initial hard tissue & soft tissue procedure. c) Secondary hard & soft tissue procedure. d) Implant procedure. e) Congenital deformities. f) Postoperative procedure.	1
6.	Principles of Retention, Support and Stability	2
7.	Impressions - detail. a) Muscles of facial expression. b) Biologic considerations for maxillary and mandibular impression including anatomy landmark and their interpretation. c) Impression objectives. d) Impression materials. e) Impression techniques. f) Maxillary and mandibular impression procedures. i. Preliminary impressions. ii. Final impressions. g) Laboratory procedures involved with impression making (Beading & Boxing, and cast preparation).	2
8.	Record bases and occlusion rims- in detail. a) Materials & techniques. b) Useful guidelines and ideal parameters. c) Recording and transferring bases and occlusal rims.	1

9.	Biological consideration in jaw relation & jaw movements - craniomandibular relations. a) Mandibular movements. b) Maxillo -mandibular relation including vertical and horizontal jaw relations. c) Concept of occlusion- discuss in brief.	1
10.	Relating the patient to the articulator. a) Face bow types & uses– discuss in brief. b) Face bow transfer procedure - discuss in brief.	1
11.	Recording maxillo mandibular relation. a) Vertical relations. b) Centric relation records. c) Eccentric relation records. d) Lateral relation records.	2
12.	Tooth selection and arrangement. a) Anterior teeth. b) Posterior teeth. c) Esthetic and functional harmony.	2
13.	Relating inclination of teeth to concept of occlusion- in brief. a) Neutrocentric concept. b) Balanced occlusal concept.	2
14.	Trial dentures	1
15.	Laboratory procedures. a) Wax contouring. b) Investing of dentures. c) Preparing of mold. d) Preparing & packing acrylic resin. e) Processing of dentures. f) Recovery of dentures. g) Lab remount procedures. h) Recovering the complete denture from the cast. i) Finishing and polishing the complete denture. j) Plaster cast for clinical denture remount procedure.	1
16.	Denture insertion. a) Insertion procedures. b) Clinical errors. c) Correcting occlusal disharmony. d) Selective grinding procedures.	1
17.	Treating problems with associated denture use – discuss in brief (tabulation/flowchart form).	1
18.	Treating abused tissues - discuss in brief.	1
19.	Relining and rebasing of dentures- discuss in brief.	1
20.	Immediate complete dentures construction procedure- discuss in brief.	1
21.	The single complete denture- discuss in brief.	1
22.	Overdentures denture- discuss in brief.	1
23.	Dental implants in complete denture - discuss in brief.	1

Clinical Postings

Exposure of students for clinical patient work in the department of prosthodontics includes demonstration of complete denture treatment and allotment of the patient for treating the same.

5. Examination Pattern

Ist internal assessment theory exam

At the end of IInd term of IIIrd year

1 hour paper of maximum 25 marks

Sr. No	Topic	Maximum Marks
1.	5 Questions of 1 marks	5
2.	2 short notes of 5 marks	10
3.	1 Question of 10 marks	10
	Total	25

Ist Clinical internal assessment exam

At the end of clinical posting in the department

Maximum marks – 25

Exercise of one clinical step in the construction of complete dentures along with chairside viva.

1. Recommended books:
    1) Syllabus of Complete Dentures by Charles Heartwell and Arthur O Rahn
    2) Boucher's Prosthodontic Treatment for Edentulous Patients
    3) Essentials of Complete Denture Prosthodontics – Sheldon Winkler

Pravara Institute of Medical Sciences
(Deemed University)
Loni Bk 413 736, Tal-Rahata, Dist-Ahmednagar (MS)

Dental Faculty

Syllabi for IV BDS

Orthodontics & Dentofacial Orthopaedics-II

(DUR 401)

Oral Medicine & Radiology – II
(DUR 402)

Paediatric & Preventive Dentistry – II
(DUR 403)

Periodontology – II (DUR 404)

Oral & Maxillofacial Surgery-II (DUR 405)

Prosthodontics and Crown & Bridge-II
(DUR 406)

Conservative Dentistry & Endodontics-II (DUR 407)

Public Health Dentistry -I (DUR 408)

Pravara Institute of Medical Sciences

(Deemed University)

Dental Faculty

Presentation of Syllabus (UG) & Distribution of Marks

Course Code :- .....Title :- .....

Teaching Hours	Theory :	hours
	Practical :	hours
	Total :	hours

1. Goal :
2. Objectives :
3. Theory Syllabus :

   The total syllabus is to be divided into Units/ Modules / Sections and number of lectures for a particular Unit / Module / Section should be specified.

4. Practical Syllabus :

   The clinical, laboratory and practical training should be given in such a way that the total syllabus as specified is covered in detail.

5. Examination Pattern :

   A. University Theory Examination

   Total Marks : 70 Time : 20 Minutes for MCQs and 2 hours 40 minutes for other questions.

Section A	
MCQs (15) (Note : Booklet containing MCQs shall be in three versions)	15 Marks
Section B	
Long Answer Questions Question No. 1 Question No. 2	 10 Marks 10 Marks
Short answer Questions Question No. 3 Four questions out of six (4 X 5)	 20 Marks
Objective Questions Question No. 4 Five out of Seven (5 X 3)	 15 Marks
Total	70 Marks

B. University Practical Examination

Total Marks : 90

Methodology for practical examination should be specified along with distribution of marks for each component.

C. Internal assessment (Theory)

Marks : 10

Three examinations - 1. At the end of first term

- 2. At the mid of second semester

- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Theory pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 90 minutes per examination

Details of distribution of marks :

Sr. No.	Question	Marks
01	MCQ (10)	10
02	Short notes (5/7)	25

Note : Preliminary examination (third internal assessment) will have pattern similar to final University examination.

D. Practical Internal Assessment Examination

Total Marks : 10

Three examinations - 1. At the end of first term

- 2. At the mid of second semester

- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Practical pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 60 minutes per examination

Details of distribution of marks should be specified.

E. **Theory Viva-Voce Examination**

Marks : 20

The theory viva-voce should be conducted independently by each examiner. In order to avoid vagueness and to maintain uniformity of stand and coverage, questions can be pre-formulated before administering them to each student. Twenty marks are exclusively allotted for viva-voce and that can be divided equally amongst the examiners, i.e., 10 marks per examiner.

6. Books recommended :

(Author/s) Title of Book (Year of publication), Publisher's name

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 401 Title : Orthodontics & Dentofacial Orthopaedics II

DEPARTMENT OF

Teaching Hours Theory : hours

Practical hours

Demonstrations + Tutorials

Total : hours

Duration : One year

ORTHODONTICS & DENTAL ORTHOPEDICS

COURSE OBJECTIVE

Undergraduate programme in Orthodontics is designed to enable the qualifying dental surgeon to diagnose, analyse and treat common orthodontic problems by preventive, interceptive and corrective orthodontic procedures. The following basic instructional procedures will be adapted to achieve the above objectives.

IV BDS

06. Morphologic Development Of Craniofacial Structures

a. Methods of bone growth

b. Prenatal growth of craniofacial structures

c. Postnatal growth and development of: cranial base, maxilla, mandible, dental arches and occlusion.

07. Functional Development Of Dental Arches And Occlusioin

a. Factors influencing functional development of dental arches and occlusion.

b. Forces of occlusion

c. Wolfe's law of transformation of bone

d. Trajectories of forces

08. Clinical Application Of Growth And Development

09. Malocclusion - In General

a. Concept of normal occlusion

b. Definition of malocclusion

c. Description of different types of dental, skeletal and functional malocclusion.

10. Normal And Abnormal Function Of Stomatognathic System.

11. Etiology Of Malocclusion

a. Definition, importance, classification, local and general etiological factors.

b. Etiology of following different types of malocclusion:

1) Midline diastema
2) Spacing
3) Crowding
4) Cross-Bite: Anterior/Posterior
5) Class III Malocclusion
6) Class II Malocclusion
7) Deep Bite
8) Open bite

f. Cephalometrics: Its advantages, disadvantages

1.Definition

2.Description and use of cephalostat

3.Description and uses of anatomical landmarks lines and angles used in
cephalometric analysis

4.Analysis- Steiner's, Down's, Tweed's, Ricket's-E- line

g. Electromyography and its uses in orthodontics

h. Wrist X-rays and its importance in othodontics

120

12. General Principles In Orthodontic Treatment Planning of Dental And Skeletal
Malocclusions

13. Anchorage In Orthodontics - Definition, Classification, Types and Stability of Anchorage

14. Biomechanical Principles In Orthodontic Tooth Movement.

a. Different types of tooth movements.

b. Tissue response to orthodontic force application.

c. Age factor in orthodontic tooth movement.

15. Corrective Orthodontics.

a. Definition, factors to be considered during treatment planning.

b. Model analysis: Pont's, Ashley Howe's, Bolton, Careys, Moyer's Mixed Dentition Analysis.

c. Methods of gaining space in the arch:- Indications, relative merits and demerits of proximal stripping, arch expansion and extractions.

d. Extractions in Orthdodontics - indications and selection of teeth for extraction.

16. Orthodontic Appliances: General

a. Requisites for orthodontic appliances

b. Classification, indications of Removable and Functional Appliances

c. Methods of force application

d. Materials used in construction of various orthodontic appliances - uses of stainless steel, technical considerations in curing of acrylic, Principles of
welding and soldering, fluxes and antifluxes.

e. Preliminary knowledge of acid etching and direct bonding.

REMOVABLE ORTHODONTIC APPLIANCES

1) Components of removable appliances
2) Different types of clasps and their uses
3) Different types of labial bows and their uses
4) Different types of springs and their uses
5) Expansion appliances in orthodontics:
i) Principles
ii) Indications for arch expansion
iii) Description of expansion appliances and different types of expansion devices
and their uses.
iv) Rapid maxillary expansion

FIXED ORTHODONTIC APPLIANCES

1.Definition, Indications & Contraindications
2.Component parts and their uses
3.Basic principles of different techniques: Edgewise, Begg's, straight wire.

EXTRAORAL APPLIANCES

1. Headgears
2. chincup
3. reverse pull headgears

MYOFUNCTIONAL APPLIANCES

1.Definition and principles
2.Muscle exercises and their uses in orthodontics
3.Functional appliances:
i) Activator, Oral screens, Frankels function regulator, bionator twin blocks, lip
bumper
ii) Inclined planes - upper and lower

17. Orthodontic Management Of Cleft Lip And Palate
18. Principles Of Surgical Orthodontics
Brief knowledge of correction of:
a. Mandibular Prognathism and Retrognathism
b. Maxillary Prognathism and Retrognathism
c. Anterior open bite and deep bite
d. Cross bite
19. Principle, Differential Diagnosis & Methods Of Treatment of:
1.Midline diastema
2.Cross bite
3.Open bite
4.Deep bite
5.Spacing
6.Crowding
7.Class II - Division 1, Division 2
8.Class III Malocclusion - True and Psuedo Class III
20. Retention And Relapse
Definition, Need for retention, Causes of relapse, Methods of retention, Different types of retention devices, Duration of retention, Theories of retention.

CLINICALS AND PRACTICAL IN ORTHODONTICS
PRACTICAL TRAINING DURING II YEAR B.D.S.

I. Basic wire bending exercises Gauge 22 or 0.7mm
1. Straightening of wires (4 Nos.)
2. Bending of a equilateral triangle
3. Bending of a rectangle
4. Bending of a square
5. Bending of a circle
6. Bending of U.V.
II. Construction of Clasps (Both sides upper/lower) Gauge 22 or 0.7mm
7. 3/4 Clasp (C-Clasp)
8. Full Clasp (Jackson's Crib)
9. Adam's Clasp
10. Triangular Clasp
III. Construction of Springs (on upper both sides) Gauge 24 or 0.5mm
11. Finger Spring
12. Single Cantelever Spring
13. Double Cantelever Spring (Z-Spring)
14. T-Springs on premolars
IV. Construction of Canine retractors Gauge 23 or 0.6mm
15. U - Loop canine retractor
(Both sides on upper & lower)
16. Helical canine retractor
(Both sides on upper & lower)
17. Buccal canine retractor:
- Self supported buccal canine retractor
with a) Sleeve - 5mm wire or 24 gauge
b) Sleeve - 19 gauge needle on any one side.
18. Palatal canine retractor on upper both sides
Gauge 23 or 0.6mm
V. Labial Bow
Gauge 22 or 0.7mm

One on both upper and lower

CLINICAL TRAINING DURING III YEAR B.D.S.

NO. EXERCISE

01. Making upper Alginate impression
02. Making lower Alginate impression
03. Study Model preparation
04. Model Analysis
a. Pont's Analysis
b. Ashley Howe's Analysis
c. Carey's Analysis
d. Bolton's Analysis
e. Moyer's Mixed Dentition Analysis

CLINICAL TRAINING DURING FINAL YEAR B.D.S.

NO. EXERCISE
01. Case History taking
02. Case discussion
03. Discussion on the given topic
04. Cephalometric tracings
a. Down's Analysis
b. Steiner's Analysis
c. Tweed's Analysis

PRACTICAL TRAINING DURING FINAL YEAR B.D.S.

1. Adam's Clasp on Anterior teeth Gauge 0.7mm
2. Modified Adam's Clasp on upper arch Gauge 0.7mm
3. High Labial bow with Apron spring on upper arch
(Gauge of Labial bow - 0.9mm, Apron spring - 0.3mm)
4. Coffin spring on upper arch Gauge 1mm
Appliance Construction in Acrylic
1. Upper & Lower Hawley's Appliance

2. Upper Hawley's with Anterior bite plane
3. Upper Habit breaking Appliance
4. Upper Hawley's with Posterior bite plane with `Z' Spring
5. Construction of Activator
6. Lower inclined plane/Catalan's Appliance
7. Upper Expansion plate with Expansion Screw

RECOMMENDED AND REFERENCE BOOKS

1. CONTEMPORARY ORTHODONTICS WILLIAM R. PROFFIT
2. ORTHODONTICS FOR DENTAL STUDENTS WHITE and GARDINER
3. HANDBOOK OF ORTHODONTICS MOYERS
4. ORTHODONTICS - PRINCIPLES AND PRACTICE GRABER
5. DESIGN, CONSTRUCTION AND USE OF REMOVABLE
6. ORTHODONTIC APPLIANCES C. PHILIP ADAMS
7. CLINICAL ORTHODONTICS: VOL1 & 2 SALZMANN

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY

PRESENTATION OF SYLLABUS

Course code :- DUR 402 Title : Oral Medicine & Radiology II

DEPARTMENT OF

Teaching Hours	Theory	: 65	hours
	Practical	200	hours
	Demonstrations + Tutorials		
	Total	: 265	hours

Duration : One year

1) **Goals :**

Dental graduates during training in the subjects should acquire adequate knowledge, necessary skills and reasonable attitudes which are required for carrying out all activities appropriate to general dental practice involving the prevention, diagnosis and treatment of anomalies and diseases of the teeth , mouth, jaws, and associated tissues.

2) Objectives :

1) To train the students to diagnose the common disorders of orofacial region by clinical examination and with the help of such investigation as may be required and medical management of orofacial disorders with drugs and physical agents.

2) To train the students about the importance, role use and techniques of radiographs / digital radiographs and other imaging methods in diagnosis.

1. The principles of clinical and radiographic of forensic odontology.

Syllabus for IV year BDS

Diagnosis, Diagnostic methods & Oral medicine

1) Disease of tongue
2) Disease of TMJ
3) Disease of Maxillary sinus
4) Immunological disease with Oral manifestation
5) Benign & malignant neoplasms
6) Treatment modalities for oral cancer
7) Cysts of the Oral cavity
8) Metabolic & Endocrine disturbances with Oral Manifestations
9) Nutritional Disorders
10) Blood disorders with Oral manifestations
11) Cervicofacial lymphadenopathy
12) Orofacial pain
13) Management of Dental problems in medically compromised patients
14) Forensic odontology
15) Diseases of bone & osteodystrophies

Oral radiology

1) Radiographic techniques for a) Extra oral Radiography b) Specialized radiographic techniquestechnique
2) Factors in production of good radiographs
3) Interpretation of radiographs in various abnormalities of teeth, bones & other orofacial tissues
4) Contrast radiography
5) Recent advances in imaging
6) Principles of radiotherapy of orofacial malignancies & complications of radiotherapy
7) Radiography in forensic odontology
8) Maxillofacial Implant Radiology

4) Practicals/ Clinicals

1)Training in scientific & systematic procedure of history taking and examination of the orofacial region.

2)Training in various extraoral radiographic procedures & specialized radiographic techniques.
3)Radoigraphic interpretation of Benign & Malignant tumors, cysts & other diseases of jaw bones.

Second Internal Assessment examination (Theory& Practicals) will be conducted at
the end of first semester of IV year BDS.

Third Internal Assessment examination (Theory& Practicals) will be conducted at
the end of second semester of IV year BDS.

5) Examination pattern

I -- University Examination

A) University theory examination: Total marks 100

University written examination—	70 marks ---	Duration 3hrs
Viva Voce -	20 marks	
Internal assessment	10 marks	

Pattern of Examination

Section A
MCQ (15) ---- 15 marks

Section B

Long answer Questions
Que no 1 10 marks
Que no 2 10 marks

Short notes
Que no 3 (4 x 5) 20 marks

Short Answer Questions :
Que no 4 (5 x 3) 15 marks

Total marks : 70

B) University practical examination **Total marks 100**

Practical examination	90 marks
Internal assessment	10 marks

Pattern of examination

1) Case history --
Clinical examination ,diagnosis, treatment of a case & chair side viva- 30 marks
2) Taking an IOPA & processing with interpretation ---- 30 marks
3) Interpretation of five clinical slides or radiographs ----- 25 marks
4) Journal ----- 05 marks

Total marks 90 marks

II Internal Assessment examinations:

Total marks -- 10

Three examinations:

First internal assessment	---	50 marks
Second internal assessment	----	50 marks
Third internal assessment	----	100 marks
Total	-----	200 marks

Pattern of theory examination :

First & Second internal assessment –

Total	Written examination + viva
50	40 + 10

MCQ	10x1 =10 marks
SAQ	5x2 = 10marks
Short notes	2x4 = 08 marks
LAQ	2x6 = 12 marks

Third Internal assessment (Preliminary Examination)

Total	Written examination + viva
100	80 + 20

MCQ	20x1 =20 marks
SAQ	10x2 = 20marks
Short notes	4x4 = 16 marks
LAQ	4x6 = 24 marks

Pattern of practical examination :

First & Second internal assessment

Total 50 marks each

Case History --- 20
Radiograph ---- 20
Interpretation of five clinical slides or radiographs -- 10

Third internal examination (Preliminary examination)

Total 100 marks

Case History --- 30
Radiograph ---- 30
Interpretation of five clinical slides or radiographs -- 30
Journal ---- 10
First internal examination at the end of III year
Second internal examination at the end of first semester of fourth year
Third internal examination at the end of Second semester of fourth year

6) Books recommended:

A)Oral diagnosis & oral medicine

1) Burkit -- Oral medicine --- J B Lippincott co

2) Coleman—Principles of oral diagnosis -- Mosby year book
3) Jones --- Oral manifestations of systemic disease—W B Saunders co
4) Mitcheel—Oral diagnosis & Oral medicine
5) Kerr --- Oral diagnosis
6) Miller— Oral diagnosis & Treatment
7) Hutchinson – Clinical methods
8) Shafers -- Oral Pathology
9) Sonis S T Fazio R C -- Principles & practice of oral medicine
10)Wood & Goaz --- Differential Diagnosis of orofacial lesions

B) Oral radiology

1) White & goaz --- Oral radiology-- Mosby year book
2) Weahrman-- Dental radiology--- C V Mosby co
3) Stafne ---- Oral radiographic diagnosis--- W B Saunders Co
4) Eric Whaites— Text book of Oral radiology
5) Langland & Langlais --- Principles of dental Imaging

C) Forensic Odontology

1) Derek H Clark-- Practical forensic odontology--- Butterworth—Heinemann (1992)
2) C Michel Bowers , Gary bell-- Manual of forensic odontology – Forensic PR(1995)

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

SENTATION OF SYLLABUS

rse code :- DUR 403 Title : **PAEDIATRIC & PREVENTIVE DENTISTRY-II**

PARTMENT OF

ıching Hours Theory : 45 hours

Practical 130 hours

Demonstrations + Tutorials

Total : 175 hours

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uration : One year

Syllabus for IV year BDS

1. CHILD PSYCHOLOGY

   Definition

   Theories of child psychology

   Psychological development of children with age

   Principles of psychological growth & development while managing child patient

   Dental fear and its management

   Factors affecting child's reaction to dental treatment

2. BEHAVIOUR MANAGEMENT

   Definitions

   Types of behaviour encountered in the dental clinic

   Non-pharmacological & pharmacological methods of behaviour management

3. PEDIATRIC OPERATIVE DENTISTRY

   - Principles of Pediatric Operative Dentistry.
   - Modifications required for cavity preparation in primary and young permanent Teeth.
   - Various Isolation Techniques.
   - Restorations' of decayed primary, young permanent and permanent teeth in children using various restorative materials like. Glass Ionomer, Composites & Silver Amalgam. Stainless steel, Polycarbonate & Resin Crowns.

4. PEDIATRIC ENDODONTICS

   - Principles & Diagnosis.
   - Classification of pulpal Pathology in primary, young permanent & permanent teeth. .
   - Management of PulpallY involved primary, young permanent & permanent teeth.
     - Pulp capping - direct & indirect.
     - Pulpotomy
     - Pulpectomy.
     - Apexogenesis
     - Apexification .

-Obturation Techniques & material used for primary, young permanent &

Permanent teeth in children.

TRAUMATIC INJURIES IN CHILDREN:

Classifications & Importance.

Sequelae & reaction of teeth to trauma.

Management of Traumatized teeth.

6. PREVENTIVE & INTERCEPTIVE ORTHODONTICS:

Definitions.

Problems encountered during primary and mixed dentition phases & their management.

Serial extractions.

Space management.

7. ORAL HABITS IN CHILDREN:

Definition, Aetiology & Classification.

Clinical features of digit sucking, tongue thrusting, mouth breathing & various other secondary habits.

Management of oral habits in children.

8. DENTAL CARE OF CHILDREN WITH SPECIAL NEEDS

- Definition, Aetiology, Classification, Behavioural and' Clinical features &
- Management of children with
- Physically handicapping conditions.
- Mentally compromising conditions.
- Medically compromising conditions.
- Genetic disorders.

9. CONGENITAL ABNORMALITIES IN CHILDREN:

DEFINITION, CLASSIFICATION, CLINICAL FEATURES & MANAGEMENT.

10. DENTAL EMERGENCIES IN CHILDREN & THEIR MANAGEMENT.

11. DENTAL MATERIALS USED IN PEDIATRIC DENTISTRY.

12. DENTAL HEALTH EDUCATION & SCHOOL DENTAL HEALTH PROGRAMMES.

13. SETTING UP OF PEDODONTIC CLINIC.

14. ETHICS.

15. CHILD ABUSE AND NEGLECT6

16. APPLIED ASPECTS OF GENETICS IN PEDIATRIC DENTISTRY.

B. PRACTICALS:

Following is the recommended clinical quota for under-graduate students in the subject of Pediatric & preventive dentistry

1. Restorations - Class I & II - 45
2. Preventive measures e.g. Oral Prophylaxis - 20.
3. Fluoride applications -10
4. Extractions - 25.
5 .se History Recording & Treatment Planning - 10
6. Education & motivation of the patients using disclosing agents. Educating patients about oral hygiene measures like tooth brushing, flossing etc.

BOOKS RECOMMENDED & REFERENCE:

1. Pediatric Dentistry (Infancy through Adolescences) - Pinkham.
2. Kennedy's Pediatric Operative Dentistry- Kennedy & Curzon.
3. Occlusal guidance in Pediatric Dentistry - Stephen H. Wei.
4. Clinical Use of Fluorides - Stephen H. Wei.
5. Pediatric Oral & Maxillofacial Surgery -Kaban.
6. ediatric Medical Emergencies - P. S: whatt.
7. Understanding of Dental Caries - Niki Foruk.
8. An Atlas of Glass Ionomer cements - G. J. Mount.
9. Clinical Pedodontics - Finn.
10. Textbook of Pediatric Dentistry - Braham Morris.
11. Primary Preventive Dentistry - Norman O. Harris.
12. Handbook of Clinical Pedodontics - Kenneth. D.
13. Preventive Dentistry - Forrester.

: Metabolism and Toxicity of Fluoride - Garry M. whitford.

ntistry for the Child a.nd Adolescence - Mc. Donald.

liatric Dentistry - Damle S. G.

haviour Management - Wright

diatric Dentistry - Mathewson.

aumatic Injuries -.andreason.

cclusal guidance in Pediatric Dentistry - Nakata.

ediatric Drug Therapy - Tomare

ontemporary Orthodontics - Profitt..

reventive Dentistry ,- Depaola.. .

letabolism & Toxicity of Fluoride - whitford. G. M.

ndodontic Practice - Grossman.

Principles of Endodontics - Munford.

Endodontics - Ingle. .

Pathways of Pulp -Cohen.

Management of Traumatized anterior Teeth - Hargreaves.

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

Presentation of Syllabus

Course Code : **DUR 404**

Title : **Periodontology**

Year of Examination : **Fourth B.D.S**

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

Presentation of Syllabus

The syllabus shall be presented in the following format,

Course Code : **DUR 404** Title : **Periodontology**

TEACHING HOURS : **Theory : 50 hours**

Practical : 130 hours

1. GOALS :

a. The dental graduate during training in the institute should acquire adequate knowledge, necessary skills and reasonable attitudes which are required for carrying out all activities appropriate to periodontal dental practice involving the prevention, diagnosis and treatment of anomalies and diseases of teeth and periodontium.

b. The graduate should understand the concept of Periodontology and should be able to participate in the concept of community oral health education and be able to participate in the rural health care delivery programmes existing in the country.

2. OBJECTIVES :

a. The student shall acquire the skill to perform dental scaling, diagnostic tests of periodontal diseases; to use the instruments for periodontal therapy and maintenance of the same.

b. The student shall develop attitude to impart the preventive measures namely, the prvention of periodontal diseases and their progress of .

c. The student shall also develop an attitude to perform the treatment with full aseptic precautions; shall develop an attitude to prevent iatrogenic diseases; to conserve the tooth to the maximum possible time by maintaining periodontal health and to refer the patients who require the specialist's treatment.

3. THEORY SYLLABUS :

1. Gingival diseases : Localized and generalized gingivitis, Papillary gingivitis, marginal and diffuse gingivitis.

Etiology, pathogenesis, clinical signs, symptoms and management of

i. Plaque associated gingivitis,

ii. Systematicallyaggravatedgingivitis (Sex,harmones,drugs&Systamic diseases)

iii. ANUG,

iv. Desquamative gingivitis – Gingivitis associated with lichen planus, pemphigod, pemphigus and other vesiculobullous lesions.

v. Allergic gingivitis.

vi. Infective gingivitis – herpetic, bacterial and candidial.

vii. Pericoronitis

viii. Gingival enlargement – Classification and differential diagnosis.

2. Habits

- Periodontal significance
- Parafunctional habits, Bruxism,
- Tongue thrusting, lip biting and occupational habits.

3. Periodontal Microbiology (Revision)

- Microbiology of various periodontal diseases

4. Trauma from occlusion

- Definition, Types,
- Histopathological changes
- Role in periodontal disease
- Measures of management in brief

5. Iatrogenic factors

Conservative Dentistry

- Restorations, overhanging restorations, interface between restorations and teeth,
- Contact point, marginal ridge, and surface roughness.

Prosthodontics

- Interrelationship
- Bridges and other prosthesis, pontics (types)
- Surface contour, relationship of margins to the periodontium,
- Gingival protection theory, muscle action theory and theory of access to oral hygiene

Orthodontics

- Interrelationship
- Removable and fixed orthodontic appliances
- Retention of plaque and bacterial changes.

6. Periodontal therapy

- General principles of periodontal therapy
- Phase I, II, III, IV Theropy

Defination of periodontal regenration ,repair,new attachment & reattachment

7. Pocket eradication procedures

- **Scaling and root planing :** Indications, Aims and objectives, Healing following root planing.
- **Hand instruments, sonic, ultrasonic & piezo-electric scalers.**
- **Curettage & its present concepts** : definition, indication, aims and objectives, procedure and healing response.

- **Flap surgery** : Definition, types of flaps, design of flaps, papilla preservation, indication, contraindication, armamentarium, surgical procedure and healing response.

8. Osseous surgery

- Osseous defects in periodontal disease
- Definition
- Classification
- Surgery- resective, additive osseous surgery
  (Osseous grafts with classification of grafts)
- Healing response
- Other regenerative procedures and root conditioning
- Guided tissue regeneration

9. Mucogingival & periodontal plastic surgery

- Definition
- Mucogingival problems : etiology, classification of gingival recession (P.D. Miller Jr. & Sullivan and Atkins)
- Indications and objectives
- Gingival extension procedures : Lateral pedicle graft, frenectomy, frenotomy
- Crown lengthening procedures
- Periodontal microsurgery in brief.

10. Splints

- Periodontal splints,
- Purpose & classification,
- Principles of splinting

11. Implants

- Definition, types, scope and biomaterials used
- Periodontal consideration such as bone implant interface, implant gingiva interface
- implant failure, peri implantitis & its management.

12. Maintenance phase (SPT)

- Aims, objectives and principles
- Importance
- Procedures
- Maintenance of implants

13. Pharmaco-therapy

- Periodontal dressings
- Antibiotics and anti-inflammatory
- Local drug delivery system

14. Periodontal management of medically compromised patient

15. Interdisciplinary care

- pulpo periodontal involvement
- Rutes of spred of infection
- Simens classification
- manegment

16. Systamic effect of periodontal disease in brief

Cardiovascular disease, Low birth weight babies etc.

4 . PRACTICAL SYLLABUS :

Requirements :

Sr. No.	Work to be done	Quota
01	Diagnosis, treatment planning, discussion and total periodontal treatment	20 cases
02	Scaling and oral hygiene instructions	30 completed cases/ or equivalent
03	Assistance in periodontal surgery	5 cases

*Note : **Work record should be maintained by all the students and should be submitted at the time of examination after due certification from the head of the department.**

DEMONSTRATIONS :

a. Bacterial smear taking
b. Surgical procedures – gingivectomy, gingivoplasty, and flap surgeries
c. Follow up procedures, post operative care and supervision.

5. EXAMIANTION PATTERN :

A . University theory examination

Total marks : 70 Time : 20 Minutes for MCQ and
2 hours 30 minutes for other questions.

1. MCQs	**15**	**Marks**	**(1x 15)**
2. Long Answer Questios			
Question No. 1	10	Marks	
Question No. 2	10	Marks	
3. Short Answer Question			
Question No. 3	20	Marks	(5 x 4)
Four sub-questions out of six sub-questions			
4. Objective Questions			
Question No. 4	15	Marks	(3x 5)
Five sub-questions out of seven sub-questions			

B. Internal Assessment (Theory) **10** **Marks**

Three internal Assessment examinations to be conducted :

- First exam at the end of first semester Marks : 25 Time : 1 Hour
- Second exam in the middle of second semester Marks : 25 Time : 1 Hour

  MCQs - 05 Marks ($^1/_2$ x 10)
  Short Answer Questions - 10 Marks (2 x 5)
  Long Answer Questions - 10 Marks (5 x 2)
  } **First & Second Internal Assessment Exam**

- Third exam at the end of second semester Marks : 50 Time : 2 Hours 30 mins

  MCQs - 10 Marks (1 x 10)
  Short Answer Questions - 15 Marks (3 x 5)
  Long Answer Questions - 10 Marks (5 x 2)
  Objective Questions - 15 Marks (3x 5)

C. University Practical Examination

Total marks : 90

Sr. No.	Work done	Marks allotted
1.	Diagnosis, treatment planning, discussion (Case History)	25
2.	Scaling, root planing and oral hygiene instructions	50
3.	Chair side discussion	10
4.	Work done record / log book	05
	Total Marks	90

D. Practical Internal Assessment Total Marks : 10

Two internal Assessment examinations to be conducted :

- Second exam at the end of fourth year clinical posting Marks : 25

Sr. No.	Work done	Marks allotted
1	Diagnosis, treatment planning, discussion (Case History)	10
2	Scaling, root planing , Chair side discussion & instrumentation	15
	Total marks	25

- Third exam at the end of second semester (Preliminary Exam) Marks : 50

Sr. No.	Work done	Marks allotted
1	Diagnosis, treatment planning, discussion (Case History)	20
2	Scaling, root planing & oral hygiene instructions	25
3	Chair side discussion & instrumentation	05
	Total Marks	50

E. Theory viva- Voce Examination

Total Marks : 20

- It is desirable to conduct viva voce independently by each examiner.
- In order to avoid vagueness and to maintain uniformity of standard and coverage, questions can be preformulated before administering them to each student.
- Twenty marks are exclusively allotted for viva voce and that can divided equally amongst the examiners, i.e. **10 marks per examiners.**

6. BOOKS RECOMMENDED :

Sr. No.	Title of book	Author
Basic books		
01	Glickman's Clinical Periodontology (9^{th} & 10^{th} Edition)	Carranza
Reference books		
01	Essentials Of Periodontology And Periodontics	Torquil Mac Phee
02	Contemporary Periodontics	Cohen
03	Periodontal Therapy	Goldman
04	Orban's Periodontics	Orban
05	Oral Health Survey	W.H.O.
06	Preventive Periodontics	Young And Stiffler
07	Public Health Dentistry	Forrest
08	Advanced Periodontal Disease	John Prichard
09	Preventive Dentistry	Forrest
10	Clinical Periodontology	Jan Lindhe
11	Periodontics	Baer And Morris
12	Community Dentistry	Soben Peter

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY
PRESENTATION OF SYLLABUS

Course code :- DUR 405 Title : **Oral & Maxillofacial Surgery-II**

DEPARTMENT OF Oral & Maxillofacial Surgery-II

Teaching Hours Theory : hours

Practical hours

Demonstrations + Tutorials

Total : hours

Duration : One year

ORAL SURGERY:

Theory:

1. Definition & scope
2. Diagnosis in Oral Surgery
   a. History taking
   b. Clinical examination
   c. Special investigation
3. Importance of general condition of the patient in relation to Oral Surgery
4. Treatment planning
5. Sterilization
6. Use of antibiotic in Oral Surgery
7. Diagnosis, pre-operative assessment & treatment of impacted teeth
8. Pre prosthetic surgery
9. Surgical aid to Orthodontics
10. Profacial infections, their diagnosis & treatment
11. Inflammatory diseases of Jawbone & their management
12. Diagnosis & management of Cysts of Oral Cavity

Practical:

1. Nerve blocks
2. Exodontia
3. Instrumentation
4. Elevators

Lectures:

Anesthesia (local & general)	10
Exodontia	10
Oral surgery	50
Total	70

Clinical 360 hrs
Total practical & clinical hrs 430 hrs

TIME (Hrs) IN CLINICAL & PRACTICAL

BDS	CLINICAL	PRACTICAL
IV	20HRS	90HRS
	20HRS	90HRS

EXAMINATION PATTERN ORAL SURGERY

Theory:

Section A: MCQ 20 Marks
Section B: SAQ
Ten short notes carrying 4 marks each 40 Marks

Section C: LAQ
Two long answers
Questions (2x20) 40 Marks
100 Marks
Oral : 25 Marks
Internal assessment: 25 Marks
50 Marks

100+50 = 150 marks

Practical Examinations:

Maximum marks 75

Clinical 60 Marks
Chair side oral 15 Marks
75 Marks

75 marks + 25 marks (internal assessment)= 100 marks

Section B: SAQ
Ten short notes carrying 4 marks each 40 Marks

Section C: LAQ
Two long answers
Questions (2x20) 40 Marks
100 Marks

Oral : 25 Marks
Internal assessment: 25 Marks
50 Marks

100 + 50 = 150 marks

Practical examination:
Maximum marks 75

Clinical 60 Marks
Chair side oral 15 Marks
75 Marks

75 marks + 25 marks (internal assessment)= 100 marks

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.
DENTAL FACULTY
PRESENTATION OF SYLLABUS

Course code :- DUR 406 Title : **Prosthodontics and crown and Bridge- II**

DEPARTMENT OF

Teaching Hours	Theory	: 30	hours
	Practical	90	hours
	Demonstrations + Tutorials		
	Total	: 120	hours

Duration : One year

Theory Syllabus: 1 Class per week.

Unit	Topics	No of Classes
1.	Introduction Terminologies and scope	1
2.	Classification.	1
3.	Examination, Diagnosis & Treatment planning & evaluation of diagnostic data	2
4.	Components of a removable partial denture. Major connectors, minor connectors, Rest and rest seats.	4
5.	Components of a Removable Partial Denture. Direct retainers, Indirect retainers, Tooth replacement.	4
6.	Principles of Removable Partial Denture Design.	1
7.	Survey and design – in brief. Surveyors. Surveying. Designing.	3
8.	Mouth preparation and master cast.	1
9.	Impression materials and procedures for removable partial dentures.	3
10.	Preliminary jaw relation and esthetic try-in for some anterior replacement teeth.	1
11.	Laboratory procedures for framework construction-in brief.	1
12.	Fitting the framework - in brief.	1
13.	Try-in of the partial denture - in brief.	1
14.	Completion of the partial denture - in brief.	1
15.	Inserting the Removable Partial Denture - in brief.	1
16.	Postinsertion observations	1
17.	Temporary Acrylic Partial Dentures.	1
18.	Immediate Removable Partial Denture.	1
19.	Removable Partial Dentures opposing Complete denture.	1

Clinical Postings

Exposure of students for clinical patient work in the department of prosthodontics includes demonstration of removable partial denture treatment and allotment of the patient for treating complete and removable partial edentulous cases.

5. Examination Pattern

IInd internal assessment theory exam

At the end of IInd term of IVth year

1 hour paper of maximum 25 marks

Sr. No	Topic	Maximum Marks
1.	5 Questions of 1 marks	5
2.	2 short notes of 5 marks	10
3.	1 Question of 10 marks	10
	Total	25

IInd Clinical internal assessment exam

At the end of clinical posting in the department

Maximum marks – 25

Exercise of one clinical step in the construction of complete dentures along with chairside viva.

1. Recommended books:
    1) Syllabus of Complete Dentures by Charles Heartwell and Arthur O Rahn
    2) Boucher's Prosthodontic Treatment for Edentulous Patients
    3) Essentials of Complete Denture Prosthodontics – Sheldon Winkler
    4) McCraken's Removable partial prosthodontics
    5) Removable partial prosthdontics by – Ernest L. Miller and Joseph E. Grasso.

PRAVARA INSTITUTE OF MEDIÇAL SCIENCES, LONI.
DENTAL FACULTY
PRESENTATION OF SYLLABUS

Course code :- DUR 407 Title :Conservative Dentistry & Endodontics-II

DEPARTMENT OF

Teaching Hours Theory : hours

Practical hours

Demonstrations + Tutorials

Total : hours

Duration : One year

1) Preventive Measures In Restorative Practice:
Plaque Control, Pitand fissure sealants dietary measures restorative procedure and periodontal health. Contact and counter of teeth and restorations matrices tooth separation and wedges.
2) Temporisation and interim restoration.
3) Pin Amalgam Restoration Indication Contra Indication:
Advantages disadvantages of each types of pin methods of placement use of auto matrix. Failure of pin amalgam restoration.
4) Management Of Deep Carious Lesions Indirect And Direct Pulp Capping.
5) Non Carious Destruction's Tooth Structures Diagnosis and Clinical Management.
6) Hyper Sensitive Dentine And Its Management.
7) Rationale of endodontic treatment case selection indication and contraindications for root canal treatments.
8) Principles of root canal treatment mouth preparation root canal instruments, hand instruments, power driven instruments, standardiasation color coding principle of using endodontic instruments. Sterilization of root canal instruments and materials rubber dam application.
9) Anatomy Of the pulp cavity: root canals apical foramen. Anomalies of pulp cavities access cavity preparation of anterior and premolar teeth.
10) Preparation of root canal space: Determination of working length, cleaning and shaping of root canals, irrigating solution chemical aids to instrumentation.
11) Disinfection of root canal space intracanal medicaments, poly antibiotic paste ross mans paste, mummifying agents. Out line of root canal treatment, bacteriological examinations, culture methods.
12) Problems during cleaning and shaping of root canal spaces. Perforation and

its management. Broken instruments and its management, management of single and double curved root canals.

13)Methods of cleaning and shaping like step back crown down and conventional methods.

14)Obturation of the root canal system. Requirements of an ideal root canal filling material obturation methods using gutta percha healing after endodontic treatment, failures in endodontics.

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

Department Of

PRESENTATION OF SYLLABUS

Course code :- DUR 408 Title :PUBLIC HEALTH DENTISTRY – I

Teaching Hours	Theory	: 60	hours
	Practical Demonstrations + Tutorials	290	hours
	Total	: 350	hours

Duration : One year

1. GOALS :-

TO PRVENT AND CONTROL ORAL DISEASES AND PROMOTE ORAL HEALTH . THROUGH ORGANIZED COMMUNITY EFFORTS.

2) OBJECTIVE:-

THE STUDENT SHALL HAVE KNOWLEDGE OF THE BASICS OF DENTAL PUBLIC HEALTH , PREVENTIVE DENTISTRY PUBLIC HEALTH PROBLEMS IN INDIA , NATIONAL ORAL HEALTH POLCY WITH EMPHASIS ON ORAL HEALTH POLICY .

Theory syllabus :-

1) Introduction to Dentistry : Definition of Dentistry , History of dentistry, Scope ,aims and objective of Dentistry .

2) Public Health :

i) Health & Disease :- Concepts , philosophy ,Definition and Characteristics

ii) Public Health :- Definition & Concepts , History of Public Health .

iii) General Epidemiology :- Definition objective,methods.

iv) Environmental Health :- Concepts ,principles ,protection ,sources , purification Environmental sanitation of water disposal of waste sanitation, then role in mass Health Health Education:-Definition, Concepts ,principles , methods and Health Education aids.

vi) Public Health Administration :- priority, establishment ,manpower ,private practice management, hospital management

vii) Ethics And Jurisprudence : Professional liabilities , negligence ,malpractice ,consents, evidence ,contracts ,and methods of identification in forensic dentistry .

viii) Nutrition in oral diseases

Behavioral Science : Definition of sociology , anthropology and their in dental practice and community.

x) Health Care Delivery System : Center and state , oral health policy , primary health care national programmes ,health organization.

3] DENTAL PUBLIC HEALTH

1) Definition and difference between community and clinical health .

2) Epidemiology Of Dental diseases - dental caries ,periodontal diseases , malocclusion,dental fluorosis and oral cancer .

3) Survey Procedures :- planning ,implementation and evaluation ,WHO oral health Survey methods1997 ,indices for dental diseases .

4) Delivery Of Dental Care : Dental auxiliaries ,operational and non -operational, incremental

and comprehensive health care ,school dental health .

5) Payments of dental care : Methods of Payment and dental insurance ,government plans.

6) Preventive Dentistry- definition, Levels ,role of individual , community and profession ,
fluorides in Dentistry ,plaque control programmes .

Research Methodology and Dental statistics

1. Health Information :- Basic knowledge of Computers,MS Office , Window 2000,statistics programmes .

2. Research Methodology :-Definition ,types of research ,designing a written protocol

3. Bio- Statistics : Introduction , collection of data , presentation of data Measures and Central tendency ,measures of dispersion,Tests of significance, Sampling and sampling techniques-types ,errors, bias,blind trails and calibration.

Practice Management
1) Place and locality
2) Premises & layout
3) Selection of equipments
4) Maintenance of records/accounts/audit.
Dentist act 1948 with amendment.
Dental council of India& state dental councils—compositions& responsibilities.
Indian Dental Association
Head office state &local branches
PRACTICAL WORK

These exercises designed to help the students in 4_{th} year.
1] Understand the community aspects of dentistry.
2] To take up leadership role in solving community oral health problems.

Exercises:

1] Collection of statistical data on population in India,birth rates morbidity & mortality, literacy per capita income.

2] Incidence & prevalence of common oral diseases like dental caries, periodontal diseases ,
oral cancers ,fluorosis at national and international levels.

3] Preparation of oral health education material, poster ,models ,slides ,

lectures,play
acting ,skits etc.

4] Oral health status assesment of the community using indices and WHO basic oral health
survey methods.

5] Exploring and planning setting of private dental clinics. & availment of finances for dental practices – preparing project report.

6] Visit to primary health center - to acquaint with activities and primary health care
delivery .

7] Visit to water purification plant / public health laboratory /center for treatment
of western and sewage water .

8] Visit to school -to assess the oral health status of school children ,emergency treatment
and health education including possible preventive care at school .
(tooth brushing technique demonstration and oral rinse programmes etc .)

10] Visit to institution for the care of handicapped , physically, mentally, or medically compromised patients.

11] preventive Dentistry:- in the department application of pit and fissure sealants ,
fluoride gel . application procedure, A.R.T. , Comprehensive health for 5 pts [at
least 2 patients.]

THEORY LECTURES IN FOURTH B.D.S [DUR – 408]

SR NO	*NAME OF THE TOPIC*	*LECTURE HRS*
01	Introduction to Dentistry : Definition of Dentistry , History of dentistry,Scope ,aims and objective of Dentistry .	03
02	Public health	18
03	Ethics and Jurisprudence	03

SR NO	NAME OF THE TOPIC	LECTURE HRS
04	Dental Public Health	06
	TOTAL HOURS----------	30

PRACTICALS / CLINICALS / FIELD PROGRAMME

FOURTH YEAR

01] Preventive Dentistry:- In the department application of pit and fissure sealants , fluoride gel . application procedure, A.R.T. , Comprehensive health for 5 pts [at least 2 patients.] ----------30 hours

02] Visit to primary health center - to acquaint with activities and primacare delivery. ---------- 20 hours

03] Visit to institution for the care of handicapped , physically, mentally, or medically compromised patients. ----------20 hours

04] Oral health status assessment of the community using indices and WHO basic oral health survey methods. ---------- 10 hours

05] Visit to school -to assess the oral health status of school children ,emergency treatment and health education including possible preventive care at school(tooth brushing technique demonstration and oral rinse programmes etc .) ---------- 10 hours

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EXAMINATION PATTERN

A] University Theory Examination

Total Marks :70 Time 20 minutes for MCQS

2 HOURS 30 MINUTES FOR OTHER QUESTIONS.

A] MCQ(15)

.....15.....Marks

B] LONG ANSWER QUESTIONS

Question No 1

.....10.....Marks

Question No 2

.....10.....Marks

(One Out of two to be answered)

C] SHORT ANSWER QUESTION

Question No 3

(four out of six)

.....20.....Marks

D] OBJECTIVE QUESTIONS

.....15.....Marks

Question No 4

(five out of seven)

B] Internal Assessment (Theory) Total marks 10

EXAMINATION

- One at the end first Semester
- Second at the mid of the Second Semester
- Third (Prelim) Exam at the end of the Second semester

C] University Practical Examination

Total Marks -90

.....70

.....20

Practical

Viva

Internal Assessment 10

D] Practical Internal Assessment .Examination

Case History & Indices ..... 20 marks

Pit and fissure sealant & Fluoride application..... 20 marks

E] Theory viva – voce examination ..... 20 marks

F] Practical Viva Voce Examination ..... 20 marks

Chairside Viva .....10 marks

Application of material -..... 5 marks

Health Education .....5 marks

1 . Make one audio / visual / audio visual aid ---------- 15 marks

2. Give health talk. ---------- 15 marks

BOOKS RECOMMENDED

SR. NO	Title of Books	Author	Year of Publication	Publisher Name
1	Dentistry Dental Practice & Community	David F. Striffler & Brain A. Burt	1983	W.B. Saunders
2	Principles of Dental Public Health	James Morse Dunning	1986	Harward university press
3	Dental Public Health & Community Dentistry	Anthony Jong	1981	C.V. Mosby

SR. NO	Title of Books	Author	Year of Publication	Publisher Name
4	Community Oral Health-A System Approach	Patricia . p Corner & Joyce	1981	Appleton-Century crofts
5	Community Dentistry a problem oriented approach	Stephen . .. L.Silverman	1980	PSG Publishing company
6	Dental Public Health- An introduction to community dentistry	Geoffrey L.Slack & Brain Burt	1980	John wright & sons ,Bristol
7	Oral Health surveys – Basic methods	WHO Geneva	1997	WHO Geneva
8	Preventive Medicine & Hygiene	Maxcy & Roseanau	1986	Appleton Century Crofts
9	Preventive Dentistry	J.O. Forest	1980	John Wright & Sons ,Bristol
10	Preventive Dentistry	Murray	1997	.....
11	Text Book of Preventive and Social Medicine	Park & Park	14th edition	.....
12	Community Dentistry	Soben Peter	1999	.....
13	Introduction to Biostatistics	B.K.Mahajan	.....	.....
14	Introduction to Statistical methods	Grewal	.....	.....

Pravara Institute of Medical Sciences
(Deemed University)
Loni Bk 413 736, Tal-Rahata, Dist-Ahmednagar (MS)

Dental Faculty

Syllabi for V BDS

Oral & Maxillofacial Surgery-III (DUR 501)

Prosthodontics and Crown & Bridge-III (DUR 502)

Conservative Dentistry & Endodontics-III (DUR 503)

Public Health Dentistry -II (DUR 504)

Pravara Institute of Medical Sciences

(Deemed University)

Dental Faculty

Presentation of Syllabus (UG) & Distribution of Marks

Course Code :- .....Title :- .....

Teaching Hours	Theory :	hours
	Practical :	hours
	Total :	hours

1. **Goal :**
2. **Objectives :**
3. **Theory Syllabus :**

   The total syllabus is to be divided into Units/ Modules / Sections and number of lectures for a particular Unit / Module / Section should be specified.

4. **Practical Syllabus :**

   The clinical, laboratory and practical training should be given in such a way that the total syllabus as specified is covered in detail.

5. **Examination Pattern :**

   A. University Theory Examination

   Total Marks : 70 Time : 20 Minutes for MCQs and 2 hours 40 minutes for other questions.

Section A		
MCQs (15) (Note : Booklet containing MCQs shall be in three versions)		15 Marks
Section B		
Long Answer Questions Question No. 1 Question No. 2		 10 Marks 10 Marks
Short answer Questions Question No. 3 Four questions out of six	(4 X 5)	 20 Marks
Objective Questions Question No. 4 Five out of Seven	(5 X 3)	 15 Marks
	Total	70 Marks

B. University Practical Examination

Total Marks : 90

Methodology for practical examination should be specified along with distribution of marks for each component.

C. Internal assessment (Theory)

Marks : 10

Three examinations
- 1. At the end of first term
- 2. At the mid of second semester
- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Theory pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 90 minutes per examination

Details of distribution of marks :

Sr. No.	Question	Marks
01	MCQ (10)	10
02	Short notes (5/7)	25

Note : Preliminary examination (third internal assessment) will have pattern similar to final University examination.

D. Practical Internal Assessment Examination

Total Marks : 10

Three examinations
- 1. At the end of first term
- 2. At the mid of second semester

- 3. Preliminary examination, 1 month prior to final University examination

(Note : Preliminary examination will have pattern similar to final University examination.)

Practical pattern for first and second internal assessment examination should be as follows :-

Total marks - 35 per examination

Time - 60 minutes per examination

Details of distribution of marks should be specified.

E. **Theory Viva-Voce Examination**

Marks : 20

The theory viva-voce should be conducted independently by each examiner. In order to avoid vagueness and to maintain uniformity of stand and coverage, questions can be pre-formulated before administering them to each student. Twenty marks are exclusively allotted for viva-voce and that can be divided equally amongst the examiners, i.e., 10 marks per examiner.

6. Books recommended :

(Author/s) Title of Book (Year of publication), Publisher's name

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

Department Of Oral & Maxillofacial Surgery

PRESENTATION OF SYLLABUS

Course code :- DUR 501 Title : Oral & Maxillofacial Surgery II

Teaching Hours Theory : hours

Practical hours
Demonstrations + Tutorials

Total : hours

Duration : One year

Theory:

1. Diagnosis & treatment of the fracture of the mandible
2. General outline of the fracture of the middle third of thee facial skeleton
3. Diagnosis & treatment of benign neoplastic lesions of the oral cavity (odontogenic & non-odontogenic)
4. Surgical procedure in relation to endodontic therapy, apicectomy
5. Surgical treatment of tumor like lesions of the oral cavity including odontome
6. Diseases of salivary glands, diagnosis treatment of salivary calculi & neoplasm arising from minor salivary gland
7. Surgical aspect of histopathological diagnosis
8. Oral Surgical complication & their management
9. Diagnosis of malignant condition of oral cavity, a broad outline about the different methods of treatment
10. Diseases of temporomandibular joint, such as arthritis, hypoplasia, subluxation, dislocation, ankylosis. Other causes of inability to open the mouth.
11. Affections of trigeminal & facial nerves.

Practical:

1. Medical emergencies
2. Trans-alveolar extractions
3. Impactions
4. Pre-prosthetic surgeries

Lectures:

Anesthesia (local & general)	10
Exodontia	10
Oral surgery	50
Total	70

Clinical	360 hrs
Total practical & clinical hrs	430 hrs

TIME (Hrs) IN CLINICAL & PRACTICAL

BDS	CLINICAL	PRACTICAL
III	20HRS	70HRS
IV	20HRS	90HRS
V	30HRS	200HRS
	70HRS	360HRS

EXAMINATION PATTERN ORAL SURGERY

Theory:

Section A: MCQ	20 Marks
Section B: SAQ	
Ten short notes carrying 4 marks each	40 Marks
Section C: LAQ	
Two long answers	
Questions (2x20)	40 Marks
	100 Marks
Oral :	25 Marks
Internal assessment: 25 Marks	
	50 Marks

100+50 = 150 marks

Practical Examinations:

Maximum marks	75
Clinical	60 Marks
Chair side oral	15 Marks
	75 Marks

75 marks + 25 marks (internal assessment)= 100 marks

Section B: SAQ
Ten short notes carrying 4 marks each 40 Marks

Section C: LAQ
Two long answers
Questions (2x20) 40 Marks
100 Marks

Oral : 25 Marks

Internal assessment: 25 Marks

50 Marks

100 + 50 = 150 marks

Practical examination:
Maximum marks 75

Clinical 60 Marks
Chair side oral 15 Marks
75 Marks

75 marks + 25 marks (internal assessment)= 100 marks

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

Department Of Oral & Maxillofacial Surgery

PRESENTATION OF SYLLABUS

Course code :- DUR 502 Title : **Prosthodontics and crown &Bridge-III**

Teaching Hours Theory : 50 hours

Practical 300 hours
Demonstrations + Tutorials

Total : 350 hours

Duration : One year

Theory Syllabus: 2 Class per week.

Unit	Topics	No of Classes
1.	Introduction to FPD	1
2.	Fundamentals of occlusion – in brief	2
3.	Articulators – in brief.	1
4.	Treatment planning for single tooth restorations.	1
5.	Treatment planning for the replacement of missing teeth including selection and choice of abutment teeth.	2
6.	Fixed partial denture configurations	2
7.	Principles of tooth preparations.	4
8.	Preparations for full veneer crowns – in detail.	2
9.	Preparations for partial veneer crowns – in brief.	1
10.	Provisional Restorations	1
11.	Fluid Control and Soft Tissue Management	1
12.	Impressions	2
13.	Working Casts and Dies	1
14.	Wax Patterns	1
15.	Pontics and Edentulous Ridges	2

16.	Esthetic Considerations	2
17.	Finishing and Cementation	1
18.	Solder Joints and Other Connectors	1
19.	All - Ceramic Restorations	1
20.	Metal - Ceramic Restorations	1
21.	Preparations of intracoronal restorations.	1
22.	Preparations for extensively damaged teeth	1
23.	Preparations for periodontally weakened teeth	1
24.	The Functionally Generated Path Technique	1
25.	Investing and Casting	1
26.	Resin - Bonded Fixed Partials Denture	1

Esthetic Dentistry

Sr. no	Topics	Conducted by Department	No of classes
1.	Introduction and scope of esthetic dentistry	Prosthodontics	1
2.	Anatomy & physiology of smile	Prosthodontics	1
3.	Role of the colour in esthetic dentistry	Prosthodontics	1
4.	Simple procedures (roundening of central incisors to enhance esthetic appearance)	Conservative	
5.	Bleaching of teeth	Conservative	
6.	Veneers with various materials	Conservative	
7.	Preventive and interceptive esthetics	Conservative	
8.	Ceramics	Prosthodontics	1
9.	Simple gingival contouring to enhance the appearance	Periodontics	

Oral Implantology

Sr. no	Topics	Conducted by Department	No of classes
1)	History of implants, their design & surface characteristics and osseo-integration	Prosthodontics	1
2)	Scope of oral & maxillofacial implantology & terminologies	Oral Surgery	
3)	A brief introduction to various implant systems in practice	Oral Surgery	
4)	Bone biology, Morphology, Classification of bone and its relevance to implant treatment and bone augmentation materials.	Oral Surgery	
5)	Soft tissue considerations in implant dentistry	Periodontics	
6)	Diagnosis & treatment planning in implant dentistry Case history taking/Examination/Medical evaluation/Orofacial evaluation/ Radiographic evaluation/ Diagnostic evaluation/ Diagnosis and treatment planning/ treatment alternatives/ Estimation of treatment costs/ patient education and motivation	Oral Surgery	
7)	Pre surgical preparation of patient	Oral Surgery	
8)	Implant installation & armamentarium for the Branemark system as a role model	Oral Surgery	
9)	First stage surgery – Mandible - Maxilla	Oral Surgery	
10)	Healing period & second stage surgery	Oral Surgery	
11)	Management of surgical complications & failures	Oral Surgery	
12)	General considerations in prosthodontic reconstruction & Bio mechanics	Prosthodontics	1
13)	Prosthodontic components of the Branemark system as a role model	Prosthodontics	2
14)	Impression procedures & Preparation of master cast	Prosthodontics	2

15)	Jaw relation records and construction of suprastructure with special emphasis on occlusion for osseointegrated prosthesis	Prosthodontics	2
16)	Management of prosthodontic complications & failures	Prosthodontics	2
17)	Recall & maintenance phase.	Periodontics	
18)	Criteria for success of osseointegrated implant supported prosthesis	Periodontics	

Clinical Postings

Exposure of students for clinical patient work in the department of prosthodontics includes demonstration of fixed partial denture treatment and allotment of the patient for treating complete, removable partial edentulous and single unit crown patients.

5. Examination Pattern

IIIrd internal assessment theory exam at the end of IInd term of Vth year

Total marks – 70

Section A – MCQ's (10)	10 marks
Section B – Long Answer Questions (2x10)	20 marks
Section C – Short Answer Questions (8x5)	40 marks

IIIrd Practical internal assessment theory exam at the end of IInd term of Vth year

Total Marks – 90.

Sr. No	Procedure	Maximum Marks
1.	Case History recording	5
2.	Evaluation of Special tray	5
3.	Border Molding	10
4.	Final Impression	10
5.	RPD Designing	15
6.	Crown Preparation on extracted tooth	20
7.	Class Records	5
8.	Viva Voce (10+10)	20

5A. University Theory Exam

Total marks – 70

Section A – MCQ's (10)	10 marks
Section B – Long Answer Questions (2x10)	20 marks
Section C – Short Answer Questions (8x5)	40 marks

University Practical examination

Total Marks – 90.

20 marks of viva voce to be added to theory

Sr. No	Procedure	Maximum Marks
1.	Case History recording with chairside viva	10
2.	Evaluation of Special tray	5
3.	Border Molding with chairside viva	20
4.	Final Impression	10
5.	RPD Designing	20
6.	Crown Preparation on extracted tooth	20
7.	Class Records	5
8.	Viva Voce (10+10)	20

6 Recommended books:

1. Syllabus of Complete Dentures by Charles Heartwell and Arthur O Rahn
2. Boucher's Prosthodontic Treatment for Edentulous Patients
3. Essentials of Complete Denture Prosthodontics – Sheldon Winkler
4. McCraken's Removable partial prosthodontics
5. Removable partial prosthdontics by – Ernest L. Miller and Joseph E. Grasso.
6. Esthetic guidelines for restorative dentistry; Scharer & others
7. Esthetics of anterior fixed prosthodontics; Chiche (GJ) & Pinault (Alain)
8. Esthetic & the treatment of facial form, Vol 28; Mc Namara (JA)
9. Contemporary Implant Dentistry - Carl .E. Misch
10. Mosby 1993 First Edition.
11. Osseointegration and Occlusal Rehabilitation Hobo S., Ichida .E. and Garcia L.T. Quintessence Publishing Company, 1989 First Edition.

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

Department Of Conservative Dentistry and Endontics

PRESENTATION OF SYLLABUS

Course code :- **DUR 503** Title : **Conservative Dentistry and Endontics III**

Teaching Hours	Theory	:	hours
	Practical Demonstrations + Tutorials		hours
	Total	**:**	**hours**

Duration : One year

1) Cast Restorations:
   Indications, contra indications, advantages and disadvantages and materials used for same class II and class I cavity preparation for inlays fabrication of wax pattern spurring inverting and casting procedures and casting defects.
2) Die Materials And Preparation Of Dies.
3) Gingival Tissue Management For Cast Restoration And Impression Procedures.
4) Recent Cavity Modification Amalgam Restoration.
5) Differences between Amalgam and Inlay Cavity preparation with note of all the types of Bewels used for Cast Restoration.
6) Control Of Pain During Operative Procedures.
7) Treatment Planning For Operative Dentistry Detailed Clinical Examination Radiographic Examination.
8) Vitality Testes, Diagnosis And Treatment Planning And Preparation Of Case Sheet.
9) Root canal sealers. Ideal properties classification. Manipulation of root canal sealers.
10) Post endodontic restoration fabrication and components of post core preparation.
11) Smear layer and its importance in endodontics and conservative treatment.
12) Discoloured teeth and its management. Bleaching agents, vital and non vital bleaching methods.
13) Traumatized teeth classification of fractured teeth. Management of fractured tooth and root. Luxated teeth and its management.
14) Endodontic surgeries indication contraindications, pre operative preparation. Pre medication surgical instruments and techniques apicectomy, retrograde filling, post operative sequale trephination hemisection, radisectomy techniques of tooth reimplantation (both

intentional and accidental) endodontic implants.
15)Root resorption.
16)Emergency endodontic procedures.
17)Lasers in conservative endodontics (introduction only) practice management.
18)Professional association dentist act 1948 and its amendment 1993.
19)Duties towards the gove. Like payments of professional tax, income tax.
20)Financial management of practice.
21)Dental material and basic equipment management.
22)Ethics.

PRAVARA INSTITUTE OF MEDICAL SCIENCES, LONI.

DENTAL FACULTY

Department Of

PRESENTATION OF SYLLABUS

Course code :- DUR 504 Title : -PUBLIC HEALTH DENTISTRY – II

Teaching Hours	Theory	: 60	hours
	Practical Demonstrations + Tutorials	290	hours
	Total	: 350	hours

Duration : One year

1. GOALS :-

TO PRVENT AND CONTROL ORAL DISEASES AND PROMOTE ORAL HEALTH THROUGH ORGANIZED COMMUNITY EFFORTS.

2) OBJECTIVE:-

THE STUDENT SHALL HAVE KNOWLEDGE OF THE BASICS OF DENTAL PUBLIC HEALTH , PREVENTIVE DENTISTRY PUBLIC HEALTH PROBLEMS IN INDIA , NATIONAL ORAL HEALTH POLCY WITH EMPHASIS ON ORAL HEALTH POLICY .

Theory syllabus :-

1) Introduction to Dentistry : Definition of Dentistry , History of dentistry, Scope ,aims and objective of Dentistry .

2) Public Health :

i) Health & Disease :- Concepts , philosophy ,Definition and Characteristics

ii) Public Health :- Definition & Concepts , History of Public Health .

iii) General Epidemiology :- Definition objective,methods.

iv) Environmental Health :- Concepts ,principles ,protection ,sources , purification Environmental sanitation of water disposal of waste sanitation, then role in mass Health

Health Education:-Definition, Concepts ,principles , methods and Health Education aids.

vi) Public Health Administration :- priority, establishment ,manpower ,private practice management, hospital management

vii) Ethics And Jurisprudence : Professional liabilities , negligence ,malpractice ,consents, evidence ,contracts ,and methods of identification in forensic dentistry .

viii) Nutrition in oral diseases

Behavioral Science : Definition of sociology , anthropology and their in dental practice and community.

x) Health Care Delivery System : Center and state , oral health policy , primary health care national programmes ,health organization.

3] DENTAL PUBLIC HEALTH

1) Definition and difference between community and clinical health .

2) Epidemiology Of Dental diseases - dental caries ,periodontal diseases , malocclusion,dental fluorosis and oral cancer .

3) Survey Procedures :- planning ,implementation and evaluation ,WHO oral health Survey methods1997 ,indices for dental diseases .

4) Delivery Of Dental Care : Dental auxiliaries ,operational and non -operational, incremental

and comprehensive health care ,school dental health .

5) Payments of dental care : Methods of Payment and dental insurance ,government plans.

6) Preventive Dentistry- definition, Levels ,role of individual , community and profession , fluorides in Dentistry ,plaque control programmes .

Research Methodology and Dental statistics

1. Health Information :- Basic knowledge of Computers,MS Office , Window 2000,statistics programmes .

2. Research Methodology :-Definition ,types of research ,designing a written protocol

3. Bio- Statistics : Introduction , collection of data , presentation of data Measures and Central tendency ,measures of dispersion,Tests of significance,
Sampling and sampling techniques-types ,errors, bias,blind trails and calibration.

Practice Management

1) Place and locality
2) Premises & layout
3) Selection of equipments
4) Maintenance of records/accounts/audit.

Dentist act 1948 with amendment.

Dental council of India& state dental councils—compositions& responsibilities.

Indian Dental Association

Head office state &local branches

PRACTICAL WORK

These exercises designed to help the students in 4_{th} year.

1] Understand the community aspects of dentistry.

2] To take up leadership role in solving community oral health problems.

Exercises:

1] Collection of statistical data on population in India,birth rates morbidity & mortality, literacy per capita income.

2] Incidence & prevalence of common oral diseases like dental caries, periodontal diseases oral cancers ,fluorosis at national and international levels.

3] Preparation of oral health education material, poster ,models ,slides , lectures,play acting ,skits etc.

4] Oral health status assesment of the community using indices and WHO basic oral health survey methods.

5] Exploring and planning setting of private dental clinics & availment of finances for dental practices – preparing project report.

6] Visit to primary health center - to acquaint with activities and primary health care delivery .

7] Visit to water purification plant / public health laboratory /center for treatment of western and sewage water .

8] Visit to school -to assess the oral health status of school children ,emergency treatment and health education including possible preventive care at school .
(tooth brushing technique demonstration and oral rinse programmes etc .)

10] Visit to institution for the care of handicapped , physically, mentally, or medically compromised patients.

11] preventive Dentistry:- in the department application of pit and fissure sealants , fluoride gel . application procedure, A.R.T. , Comprehensive health for 5 pts [at least 2 patients.]

THEORY LECTURES IN FIFTH B.D.S [DUR – 504]

SR NO	*NAME OF THE TOPIC*	*LECTURE HRS*
01	Research Methodology and Dental statistics	08
02	Practice Management	06
03	Dentist act 1948 with amendment. Dental council of India& state dental councils—compositions& responsibilities. Indian Dental Association Head office state &local branches	06
04	Ethics and Jurisprudence	04
05	Dental Public Health	06
	TOTAL HOURS ----------	30

CLINICAL WORK IN FIFTH B.D.S

01] Collection of statistical data on population in India,birth rates morbidity & mortality, literacy per capita income. ----------30 hours

02] Incidence & prevalence of common oral diseases like dental caries, periodontal diseases ,oral cancers ,fluorosis at national and international levels. ---------- 30 hours

03] Preparation of oral health education material, poster ,models ,slides , lectures,play acting ,skits etc. ---------- 40 hours

04] Oral health status assesment of the community using indices and WHO basic oral health survey methods. ---------- 30 hours

05] Exploring and planning setting of private dental clinics & availment of finances for dental practices – preparing project report . ----------20 hours

06] Visit to school -to assess the oral health status of school children ,emergency treatment and health education including possible preventive care at school . (tooth brushing technique demonstration and oral rinse programmes etc .) ---------- 20 hours

07] Visit to water purification plant / public health laboratory /center for treatment of western and sewage water . ---------- 10 hours

08] Preventive Dentistry:- In the department application of pit and fissure sealants , fluoride gel . application procedure, A.R.T. , Comprehensive health for 5 pts [at least 2 patients.] ---------- 20 hours

EXAMINATION PATTERN

A] University Theory Examination

Total Marks :70

Time 20 minutes for MCQS
2 HOURS 30 MINUTES FOR OTHER QUESTIONS.

A] MCQ(15) .....15.....Marks

B] LONG ANSWER QUESTIONS

Question No 1 .....10.....Marks

Question No 2 .....10.....Marks

(One Out of two to be answered)

C] SHORT ANSWER QUESTION
Question No 3
(four out of six) .....20.....Marks

D] OBJECTIVE QUESTIONS .....15.....Marks
Question No 4
(five out of seven)

B] Internal Assessment (Theory) Total marks 10

EXAMINATION

- One at the end first Semester
- Second at the mid of the Second Semester
- Third (Prelim) Exam at the end of the Second semester

C] University Practical Examination

Total Marks -90

Practical 70
Viva 20
Internal Assessment 10

D] Practical Internal Assessment .Examination

Case History & Indices ..... 20 marks

Pit and fissure sealant & Fluoride application ..... 20 marks

E] Theory viva – voce examination ..... 20 marks

F] Practical Viva Voce Examination ..... 20 marks

Chairside Viva .....10 marks

Application of material -..... 5 marks

Health Education .....5 marks

1. Make one audio / visual / audio visual aid ---------- 15 marks

2. Give health talk. ---------- 15 marks

BOOKS RECOMMENDED .

SR. NO	Title of Books	Author	Year of Publication	Publisher Name
1	Dentistry Dental Practice & Community	David F. Striffler & Brain A. Burt	1983	W.B. Saunders
2	Principles of Dental Public Health	James Morse Dunning	1986	Harward university press
3	Dental Public Health & Community Dentistry	Anthony Jong	1981	C.V. Mosby
4	Community Oral Health-A System Approach	Patricia . p Corner & Joyce	1981	Appleton-Century crofts
5	Community Dentistry a problem oriented approach	Stephen L.Silverman	1980	PSG Publishing company
6	Dental Public Health- An introduction to community dentistry	Geoffrey L.Slack & Brain Burt	1980	John wright & sons ,Bristol
7	Oral Health surveys – Basic methods	WHO Geneva	1997	WHO Geneva
8	Preventive Medicine & Hygiene	Maxcy & Roseanau	1986	Appleton Century Crofts
9	Preventive Dentistry	J.O. Forest	1980	John Wright & Sons ,Bristol
10	Preventive Dentistry	Murray	1997	.....
11	Text Book of Preventive and Social Medicine	Park & Park	14th edition	.....
12	Community Dentistry	Soben Peter	1999	.....
13	Introduction to Biostatistics	B.K.Mahajan	.....	.....
14	Introduction to Statistical methods	Grewal	.....	.....

Revised B. D. S. Course Regulations – 2007

Published in the Gazette of India dated	Dental Council of India Notification No.
10th Sept. 2007 Regd No. DL 33004/99	DE-22-2007 dated 25th July 2007

Duration of the Course : 5 Years

Sr. No.	*Subject*	*Marks : Maximum / Passing*			*Course Code*
		Theory	*Practical*	*Total*	
1st Year BDS (2007-2008)					
1.	General Human Anatomy including Embryology & Histology	100 / 50	100 / 50	200 / 100	DUR-101
2	General Human Physiology & Biochemistry, Nutrition & Dietics	100 / 50	100 / 50	200 / 100	DUR-102
3.	Dental Anatomy, Embryology & Oral Histology	100 / 50	100 / 50	200 / 100	DUR-103
4.	Dental Material - I	College level Viva Voce		50 / 25	DUR-104
5.	Pre-Clinical Prosthodontics and Crown & Bridge - I	College level Viva Voce		50 / 25	DUR-105

I. University Examination (3 subjects) : 600 Marks (600/300)
II. College level Viva Voce (2 subjects) for grant of Term : 50 Marks each (50/25)

2nd Year BDS (2008-2009)					
1.	General Pathology & Microbiology	100 / 50	100 / 50	200 / 100	DUR-201
2.	General & Dental Pharmacology and Therapeautics	100 / 50	100 / 50	200 / 100	DUR-202
3.	Dental Materials - II	100 / 50	100 / 50	200 / 100	DUR-203
4.	Pre-Clinical Conservative Dentistry I. Internal assessment II. Practical III. Viva Voce	Only Practical and Viva Voce 100 / 50		100 / 50	DUR-204
5.	Pre-Clinical Prosthodontics I. Internal assessment II. Practical III. Viva Voce	Only Practical and Viva Voce 100 / 50		100 / 50	DUR-205
6.	Oral Pathology & Oral Microbiology	College level Viva Voce		50 / 25	DUR-206

I. University Examination : 800 Marks (800/400)
II. College level Viva Voce : 50 Marks (50/25) one subject) for grant of Term

3rd Year BDS (2009-2010)

Sr. No.	*Subject*	*Marks : Maximum Passing*			*Course Code*
		Theory	*Practical*	*Total*	
1.	General Medicine	100 50	100 50	200 100	DUR-301
2.	General Surgery	100 50	100 50	200 100	DUR-302
3.	Oral Pathology & Oral Microbiology-II	100 50	100 50	200 100	DUR-303
4	Oral Medicine & Radiology-I	College level Viva Voce		50 25	DUR-306
5	Orthodontics & Dentofacial Orthopaedics-I	College level Viva Voce		50 25	DUR-307
6	Paed atrics-I	College level Viva Voce		50 25	DUR-308
7	Periodontology-I	College level Viva Voce		50 25	DUR-309

I. University Examinations : 600 Marks (600/300)
(3 Subjects)

II. College Level Viva Voce : 50 Marks each (50/25)
(4 Subjects)

3rd Year BDS

Sr. No.	*Subject*	*Course Code*
1.	Conservative Dentistry & Endodontics	DUR-304
2.	Oral & Maxillofacial Surgery	DUR-305
3.	Prosthodontics and Crown & Bridge	DUR-310

The above subjects spread over three years from IIIrd year BDS to Vth year BDS and University Examination will be conducted at Vth year BDS. However so as to enable to reduce the burden of three subjects University Examination and eight subjects Viva-Voce at college level, the college level Viva-Voce examination to grant term will be conducted at the IVth year BDS course.

Sr. No.	Subject	Marks : Maximum / Passing			Course Code
		Theory	Practical	Total	

4th Year BDS (2010-2011)

Sr. No.	Subject	Marks : Maximum / Passing			Course Code
		Theory	Practical	Total	
1.	Orthodontics & Dentofacial Orthopaedics II	100 / 50	100 / 50	200 / 100	DUR-401
2.	Oral Medicine & Radiology II	100 / 50	100 / 50	200 / 100	DUR-402
3.	Paediatric & Preventive Dentistry II	100 / 50	100 / 50	200 / 100	DUR-403
4.	Periodontology II	100 / 50	100 / 50	200 / 100	DUR-404
5.	Oral & Maxillofacial Surgery II	College Level Viva Voce		50 / 25	DUR- 405
6.	Prosthodontics and crown & Bridge II	College Level Viva Voice		50 / 25	DUR- 406
7.	Conservative Dentistry and Endodontics II	College Level Viva Voice		50 / 25	DUR- 407
8.	Public Health Dentistry I	College Level Viva Voice		50 / 25	DUR- 408

I. University Examination (4 Subjects) : 800 Marks (800/400)

II. College Level Viva Voce (4 Subjects) : 50 Marks each (50/25)

5th Year BDS (2011-2012)

1.	Oral & Maxillofacial Surgery - III	100 / 50	100 / 50	200 / 100	DUR-501
2.	Prosthodontics and Crown & Bridge - III	100 / 50	100 / 50	200 / 100	DUR-502
3.	Conservative Dentistry and Endodontics III	100 / 50	100 / 50	200 / 100	DUR-503
4.	Public Health Dentistry II	100 / 50	100 / 50	200 / 100	DUR-504

Internal Assessment Examinations

a) Only 3 Internal assessment (Theory and Practical separately) over a span of academic tenure. (College level viva voce can be considered under practical internal assessment test programme)

b) Average Marks of these examinations should be considered

c) 10% of the total Marks in each subject for both theory, Practical & Clinial examination separately should be set aside for the Internal Assessment Examination.

Scheme of University Examination & Marks Distribution in each subject

(Each Subject shall have a maximum of 200 Marks)

a) Theory - 100 Marks

b) Practical / Clinical - 100 Marks

Sr. No.	*Theory*	*Marks*	*Sr. No.*	*Practical/Clinical*	*Marks*
1.	University Written Exam	70	1.	University Exam.	90
2.	*Viva Voce	20	2.	Internal Assessment (written)	10
3.	Internal Assessment (written)	10			
	Total	100		Total	100

Practical and Viva Voce only in University Examination

Subjects at the end of II Year BDS

I. Pre-Clinical Prosthodontics
II. Pre-Clinical Conservative Dentistry

Pattern of Practical & Viva Voce

I. Internal Assessment	-	20 Marks
II. Practical	-	60 Marks
III. *Viva Voce	-	20 Marks
Total	-	100 Marks

1. It is desirable to conduct the Viva Voce independently by each examiner (External/ Internal) and divided equally amongst the examiners i.e. 10 marks per examiner.

2. In order to maintain uniformity of standard and coverage, questions can be pre-formulated before administering them to each student.

3. *20 Marks are exclusively allotted for Viva Voce.

Theory Examination Pattern

1. Duration - Three Hours

2. Question Paper Type - a) LAQ b) Short Note
c) SAQ d) MCQs

3. a) Physiology and Biochemistry
b) Pathology and Microbiology
} Divided in two parts, Equal Marks

Revised B.D.S. Course Regulations 2007 (Five years B.D.S. Degree Course)

Qualifications and Experience for Examinership

(Page No .101 of the Gazatte)

Sr. No.	*Qualification/Subject etc.*	*Experience/Details of Examiners etc.*
1.	M. D. S. from a Registered Institution	I. Four years teaching experience in the subject in a Dental College after M.D.S. II. Holding a post of Reader or above in a Dental Institutions approved/ recognised by the Dental Council of India for B.D.S.
2.	Public Health Dentistry	Due to acute shortage of teachers, one Examiner from Public Health Dentistry and second from the Periodontics subject. (To be reviewed after three years).
3.	Physiology and Biochemistry	If Internal Examiner is from Physiology, External Examiner should be from Biochemistry or vice versa.
4.	Pathology and Microbiology	If Internal Examiner is from Pathology, External examiner should be from Microbiology or vice versa.
5.	Dental Materials	If Internal Examiner is from Prosthodontics, External Examiner should be from Conservative Dentistry or vice versa.
6.	Examiners	50% of Examiners appointed shall be External from Dental Institutions approved /recognised by DCI from other Universities preferably from outside the state.
7.	Internal Examiner	The Internal Examiner in a subject should not accept Examinership from the College of External Examiner.
8.	Term of Examinership	No person shall be an External Examiner for more than three consecutive years. After one year break, the person can be appointed.

During the five years undergraduate course, the instruction in Clinical Subjects should be at least for three years.

The laboratory skills to be developed by the students like Pre-clinical Prosthodontics, Crown & Bridge, Aesthetic Dentistry and Oral Implantology exercises and studying Dental Morphology is a part of initial training.

The instructions in Medical and Dental Sciences shall be for two years duration.

There should be a minimum of 240 teaching days every year consisting of 8 working hours a day including one hour lunch break. This does not include one month mid year vacation and one month University Examination.

The Dental College shall make arrangement for Comprehensive Oral Health Care training for at least three months during fifth year B.D.S.

Ist year BDS Curriculum

Sr.No.	Subject	Teaching year	Examination	Remarks
1.	General Human Anatomy including Embryology and Histology	Ist year BDS	Ist year BDS	
2.	General Human Physiology and Biochemistry, Nutrition and Dietics	Ist year BDS	Ist year BDS	
3.	Dentaal Anatomy Embryology & Oral Histology	Ist year BDS	Ist year BDS	
4.	Dental Materials	Ist & IInd year BDS	IInd year BDS	College level viva 50 marks for grant of terams
5.	Pre-Clinical Prosthodontics and Crown & Bridge	Ist & IInd year BDS	IInd year BDS (only Practical & Viva - Voce exam.)	

IInd Year BDS Curricullam

Sr.No.	Subject	Teaching year	Examination	Remarks
1.	General Pathology & Microbiology	IInd year BDS	IInd year BDS	
2.	General & Dental Pharmacology & Therapeutics	IInd year BDS	IInd year BDS	
3.	Dental Materials	Ist & IInd year BDS	IInd year BDS	

Sr.No.	Subject	Teaching year	Examination	Remarks
4.	Pre- Clinical Conservative Dentistry	IInd year BDS	Only Practical & Viva – Voce Univeersity Exam. at IInd year BDS	
5.	Pre- Clinical Prosthodontics and Crown & Bridge	Ist & IInd year BDS	Only Practical & Viva – Voce Univeersity Exam. at IInd year BDS	
6.	Oral Pathology & Oral Microbiology	IInd & IIIrd year BDS	IIIrd year BDS	college level viva voce for grant of terms

IIIrd year BDS Curricullum

Sr.No.	Subject	Teaching year	Examination	Remarks
1.	General Medicine	IIIrd year BDS	IIIrd year BDS	
2.	General Surgery	IIIrd year BDS	IIIrd year BDS	
3.	Oral Pathology & Oral Microbiology	IInd & IIIrd year BDS	IIIrd year BDS	
4.	Conservative Dentistry & Endodontics	IIIrd, IVth & Vth year BDS	Vth year BDS	
5.	Oral & Maxillofacial Surgery	IIIrd, IVth & Vth year BDS	Vth year BDS	
6.	Oral Medicine & Radiology	IIIrd & IVth year BDS	IVth year BDS	
7.	Orthodontics & Dentofacial Orthopaedics	IIIrd & IVth year BDS	IVth year BDS	
8.	Paediatrics & Preventive Dentistry	IIIrd & IVth year BDS	IVth year BDS	
9.	Periodontology	IIIrd & IVth year BDS	IVth year BDS	
10.	Prosthodontics and Crown & Bridge	IIIrd , IVth & Vth year	Vth year BDS	

Sr.No.	Subject	Teaching year	Examination	Remarks
		BDS		

IVth year BDS Curricullam

Sr.No.	Subject	Teaching year	Examination	Remarks
1.	Orthodontics & Dentofacial Orthopaedics	IIIrd & IVth year BDS	IVth year BDS	
2.	Oral Medicine & Radiology	IIIrd & IVth year BDS	IVth year BDS	
3.	Paediatrics & Preventive Dentistry	IIIrd & IVth year BDS	IVth year BDS	
4.	Periodontology	IIIrd & IVth year BDS	IVth year BDS	
5.	Oral & Maxillofacial Surgery	IIIrd, IVth & Vth year BDS	Vth year BDS	
6.	Prosthodontics and Crown & Bridge	IIIrd , IVth & Vth year BDS	IVth year BDS	
7.	Conservative Dentistry & Endodontics	IIIrd, IVth & Vth year BDS	IVth year BDS	
8.	Public Health Dentistry	IVth & Vth year BDS	Vth year BDS	

Vth year BDS Curricullam

Sr.No.	Subject	Teaching year	Examination	Remarks
1.	Oral & Maxillofacial Surgery	IIIrd, IVth & Vth year BDS	Vth year BDS	
2.	Prosthodontics and Crown & Bridge	IIIrd , IVth & Vth year BDS	Vth year BDS	
3.	Conservative Dentistry & Endodontics	IIIrd, IVth & Vth year	IVth year BDS	

Sr.No.	Subject	Teaching year	Examination	Remarks
		BDS		
4.	Public Health Dentistry	IVth & Vth year BDS	Vth year BDS	

The Curricullam of the above subjects as approved by the respective Boards of Studies is submitted for approval of Academic Council. The same is enclosed as Enclosure No. IX.

University Examination and Distribution of Marks
First year B.D.S.

Sr. No.	*Subject*	*University Code No.*	*Theory*				*Practicals/Clinicals*							*Grand Total*
			Written	Viva Voce	Internal Assess-ment	Total	Univers-ity Exam.	Internal Assessment (Written)	Total					
			70	20	10	100/50	90	10	100/50					600/300
1.	General Human Anatomy including Embryology and Histology (Theory & Practical)	DUR-101												
2.	General Human Physiology and Biochemistry, Nutrition and Dietics (Theory & Practical)	DUR-102												
3.	Dental Anatomy, Embryology and Oral Histology (Theory & Practical)	DUR-103												
	College level Internal Viva Voce Examination of 50 Marks each. (No University Exam.) for grant of term in the subject													Viva Voce total 50/25
4.	Dental Materials – I	DUR-104	NA	NA		NA	NA	NA	NA					
5.	Pre-Clinical Prosthodontics, Crown & Bridge	DUR-105	NA	NA		NA	NA	NA	NA					

Place :
Date :

Result -

University Examination and Distribution of Marks
Second year B.D.S.

Sr. No.	*Subject*	*University Code No.*	*Theory*				*Practicals/Clinicals*			*Practical & Viva Voce only*				*Grand Total*
			Written	Viva Voce	Internal Assess-ment	Total	Univers-ity Exam.	Internal Assessmen t (Written)	Total	Internal Assess-ment	Practi-cal	Viva voce	Total	
			70	20	10	100/50	90	10	100/50	20	60	20	100/50	800/400
1.	General Pathology and Microbiology (Theory & Practical)	DUR 201								NA	NA	NA	NA	
2.	General and Dental Pharmacology and Therapeutics (Theory & Practical)	DUR 202								NA	NA	NA	NA	
3.	Dental Materials II (Theory & Practical)	DUR 203								NA	NA	NA	NA	
4.	Pre-Clinical Conservative Dentistry (Practical & Viva Voce)	DUR 204	NA	NA	NA	NA	NA	NA	NA					
5.	Pre-Clinical Prosthodontics and crown & Bride (Practical & Viva Voce)	DUR 205	NA	NA	NA	NA	NA	NA	NA					
	College leval Viva Voce Examination of 50 Marks (No Univ. Exam.) for grant of term in the subject													**Total 50/25**
6.	Oral Pathology and Oral Microbiology I	DUR 206	NA	NA	NA	NA	NA	NA	NA					

Place :
Date :

Result -

University Examination and Distribution of Marks
Third year B.D.S.

Sr. No.	*Subject*	*University Code No.*	*Theory*				*Practicals/Clinicals*							*Grand Total*
			Written	Viva Voce	Internal Assessment	Total	University Exam.	Internal Assessment (Written)	Total					
			70	20	10	100/50	90	10	100/50					600/300
1.	General Medicine (Theory & Clinical)	DUR 301												
2.	General Surgery (Theory & Clinical)	DUR 302												
3.	Oral Pathology & Oral Microbiology II (Theory & Practical/Clinical)	DUR 303												
<u>College leval Viva Voce Examination of 50 Marks each. (No Univ. Exam.) for grant of term in the subject</u>													<u>Viva Voce</u> 50/25	
4	Oral Medicine & Rediology-I	DUR 306	NA	NA	NA	NA	NA	NA	NA					
5	Orthodontics & Dentofacial Orthopaedics-I	DUR 307	NA	NA	NA	NA	NA	NA	NA					
6	Paediatrics-I	DUR 308	NA	NA	NA	NA	NA	NA	NA					
7	Periodontology-I	DUR 309	NA	NA	NA	NA	NA	NA	NA					

Place :
Date :

Result -

University Examination and Distribution of Marks
Forth year B.D.S.

Sr. No.	*Subject*	*University Code No.*	*Theory*				*Practicals/Clinicals*								*Grand Total*
			Written	Viva Voce	Internal Assess-ment	Total	Univers-ity Exam.	Internal Assessment (Written)	Total						
			70	20	10	100/50	90	10	100/50						800/400
1.	Orthodontics and Dentofacial Orthopaedics II (Theory, Practical & Clinical)	DUR 401													
2.	Oral Medicine & Radiology II (Theory, Practical & Clinical)	DUR 402													
3.	Paediatric and Preventive Dentistry II (Theory, Practical & Clinical)	DUR 403													
4.	Periodontology II (Theory, Practical & Clinical)	DUR 404													

College leval Viva Voce Examination of 50 Marks each. (No Univ. Exam.) for grant of term in the subject

Viva Voce
50/25

5.	Oral and Maxillofacial Surgery II	DUR 405	NA	NA	NA	NA	NA	NA	NA						
6.	Prosthodontics and crown & Bridge	DUR 406	NA	NA	NA	NA	NA	NA	NA						
7.	Conservative Dentistry and Endodontics II	DUR 407	NA	NA	NA	NA	NA	NA	NA						
8.	Public Health Dentistry I	DUR 408	NA	NA	NA	NA	NA	NA	NA						

Place :

Date :

Result -

University Examination and Distribution of Marks
Fifth year B.D.S.

Sr. No.	*Subject*	*University Code No.*	*Theory*				*Practicals/Clinicals*							*Grand Total*
			Written	Viva Voce	Internal Assess-ment	Total	Univers-ity Exam.	Internal Assessment (Written)	Total					
			70	20	10	100/50	90	10	100/50					800/400
1.	Oral and Maxillofacial Surgery – II (Theory, Practical & Clinical)	DUR 501												
2.	Prosthodontics and crown and Bridge – III (Theory, Practical & Clinical)	DUR 502												
3.	Conservative Dentistry and Dendodontics – III (Theory, Practical & Clinical)	DUR 503												
4.	Public Health Dentistry II (Theory, Practical & Clinical)	DUR 504												

Place :
Date :

Result -

PRAVARA INSTITUTE OF MEDICAL SCIENCES ,
COLLEGE OF NURSING , LONI
B.Sc. NURSING SYLLABUS

Duration

Course Duration	= 4 Years
Weeks available per week	= 52 weeks
Vacation	= 8 weeks
Gazzeted holidays	= 3 weeks
Examination (Including preparatory)	= 4 weeks
Available weeks	= 37 w eeks
Hours per week	= 40
Practical	= 30 hours per week
Theory	= 10 hours per week
Internship practical	= 48 hours per week
Hours available per academic year	= 1480 (37 weeks x 40 hours)

Course of Instruction

First Year

Subject	*Theory (In Hrs) (Class & Lab.)*	*Practical (In Hrs.) (Clinical)*	*(In Hrs.)*
1. *English	60		
2. Anatomy	60		
3. Physiology	60		
4. Nutrition	60		
5. Biochemistry	30		
6.Nursing Foundations	265+200	450	
7.Psychology	60		
8.Microbiology	60		
9.Introduction to Computer	45		
10.**Hindi/Regional Language	30		
11. Library work/ Self Study			50
12.Co-curricukar activities			50
Total Hours	930	450	100
Total Hours = 1480			

**Optional

Second Year

Sr.No.	*Subject*	*Theory(In Hrs.) (Class & Lab.)*	*Practical(In Hrs.) (Clinical)*	*In Hrs.*
1.	Sociology	60		
2	Pharmacology	45		
3	Pathology	30		
4	Genetics	15		
5	Medical- Surgical Nursing (Adult including geriatrics)-I	210	720	
6	**Medical- Surgical Nursing (Adult including geriatrics)-II**	**90**		
7	Community Health Nursing-I	90	135	
8	Library work/ Self Study			50
9	Co-curricular activities			35
	Total Hours	540	855	85
	Total Hours = 1480			

Third Year

Sr.No.	*Subject*	*Theory(In Hrs.) (Class & Lab.)*	*Practical (In Hrs.) (Clinical)*	*(In Hrs.)*
1	**Medical- Surgical Nursing (Adult including geriatrics)-II**	**30**	**270**	
2	Child Health Nursing	90	270	
3	Mental Health Nursing	90	270	
4	Community Health Nursing-II	90	135	
5	**Communication & Educational Technology**	**90**		
6	**Nursing Research & Statistics**	**45**	*	
7	Library Work/ Self Study			50
8	Co curricular activities			50
	Total Hours	435	945	100
	Total Hours =1480			

Fourth Year

Sr.No.	*Subject*	*Theory(In Hrs.) (Class & Lab.)*	*Practical (In Hrs.) (Clinicals)*
1	Midwifery & Obstretical Nursing	**90**	**360**
2	Management of Nursing Services & Education	60+30	
	Total Hours	180	360
	Total Hours = 540		

*Project work to be carried out during internship

Intern-ship (Integrated practice)

Sr.No.	*Subject*	*Theory*	*Practical (in Hrs.)*	*In weeks*
1	Mid wifery and obstetrical Nursing		240	5
2	Community health Nursing – II		195	4
3	Medical Surgical nursing (Adult& Geriatric)		430	9
4	Child Health Nursing		145	3
5	Mental Health Nursing		95	2
6	Research project		45	1
	Total Hrs		1150	24
	Total Hrs 1690			

Note:

1. Internship means 8 hrs of integrated clinical duties in which 2 weeks of evening and night shift duties are included.
2. Internship should be carried out as 8 hrs. per day at 48 hrs. per week.
3. Students during internship will be supervised by nursing teachers.
4. fourth year final examination to
5. be held only after completing internship.

B.Sc. NURSING SYLLABUS PRESCRIBED BY I.N.C.

Duration

Course Duration	= 4 Years
Weeks available per week	= 52 weeks
Vacation	= 8 weeks
Gazzeted holidays	= 3 weeks
Examination (Including preparatory)	= 4 weeks
Available weeks	= 37 w eeks
Hours per week	= 40
Practical	= 30 hours per week
Theory	= 10 hours per week
Internship practical	= 48 hours per week
Hours available per academic year	= 1480 (37 weeks x 40 hours)

Course of Instruction

First Year

Subject	*Theory (In Hrs) (Class & Lab.)*	***Practical** (In Hrs.) (Clinical)*	*(In Hrs.)*
1. *English	60		
2. Anatomy	60		
3. Physiology	60		
4. Nutrition	60		
5. Biochemistry	30		
6.Nursing Foundations	265+200	450	
7.Psychology	60		
8.Microbiology	60		
9.Introduction to Computer	45		
10.**Hindi/Regional Language	30		
11. Library work/ Self Study			50
12.Co-curricukar activities			50
Total Hours	930	450	100
Total Hours = 1480			

Second Year

Sr.No.	*Subject*	*Theory(In Hrs.) (Class & Lab.)*	*Practical(In Hrs.) (Clinical)*	*In Hrs.*
1.	Sociology	60		
2	Pharmacology	45		
3	Pathology	30		
4	Genetics	15		
5	Medical- Surgical Nursing (Adult including geriatrics)-I	210	720	
6.	Community Health Nursing-I	90	135	
7.	Communication & Education Technology	60+30		
7.	Library work/ Self Study			50
9	Co-curricular activities			35
	Total Hours	540	855	85
	Total Hours = 1480			

Third Year

Sr.No.	*Subject*	*Theory(In Hrs.) (Class & Lab.)*	*Practical (In Hrs.) (Clinical)*	*(In Hrs.)*
1	Medical- Surgical Nursing (Adult including geriatrics)-II	120	270	
2	Child Health Nursing	90	270	
3	Mental Health Nursing	90	270	
4	Midwifery & Obstetrical Nursing	90	180	
5	Library Work/ Self Study			50
6	Co curricular activities			50
	Total Hours	390	990	100
	Total Hours =1480			

Fourth Year

Sr.No.	*Subject*	*Theory(In Hrs.) (Class & Lab.)*	*Practical (In Hrs.) (Clinicals)*
1	Midwifery & Obstretical Nursing	--	180
2	Community Health Nursing – II	90	135
3	Nursing Research & Statistics	45	*
4	Management of Nursing Services & Education	60+30	
	Total Hours	225	315
	Total Hours = 540		

*Project work to be carried out during internship

Intern-ship (Integrated practice)

Sr.No.	*Subject*	*Theory*	*Practical (in Hrs.)*	*In weeks*
1	Mid wifery and obstetrical Nursing		240	5
2	Community health Nursing – II		195	4
3	Medical Surgical nursing (Adult& Geriatric)		430	9
4	Child Health Nursing		145	3
5	Mental Health Nursing		95	2
6	Research project		45	1
	Total Hrs		1150	24
	Total Hrs 1690			

Note:

1. Internship means 8 hrs of integrated clinical duties in which 2 weeks of evening and night shift duties are included.
2. Internship should be carried out as 8 hrs. per day at 48 hrs. per week.
3. Students during internship will be supervised by nursing teachers.
4. Fourth year final examination to be held only after completing internship.