REGULATIONS FOR THE POST GRADUATE DIPLOMA COURSES

Eligibility :

A candidate for admission to the Diploma Course must have a degree of BDS (Bachelor of Dental Surgery) from a college and University recognized by Dental Council of India or an equivalent qualification recognized by the Dental Council of India. Candidates not possession a recognized Dental qualification for the above purpose should secure the prior approval of his qualifications by the Dental Council of India before he / she can be admitted to the Diploma courses in any of the Universities in India.

Duration of the Course:

The duration of the diploma courses in various specialties of dentistry shall be of two years duration which will be further divided into four Semesters as under:-

First and Second Semester : Preclinical Work and Applied Basic Sciences.

Third and Fourth Semester : Clinical Work

All the candidates for the Post Graduate Diploma are required to pursue the prescribed course for at least two academic years as full time candidates in a BDS recognized and MDS approved / recognized Institution under the direction of the Head of the department who has to be a recognized postgraduate teacher in that specialty.

Selection of students :

(1) Students for Post Graduate Diploma Courses shall be selected strictly on the basis of their academic merit.

(2) For determining the academic merit work the university / institution should follow the procedure given below :

(i) On the basis of merit as determined by a competitive test conducted by the state Government or by the competent authority appointed by the State Government or by the University / group of universities in the same state; or

(ii) On the basis of merit as determined by a centralized competitive test held at the national level; or

(iii) On the basis of the individual cumulative performance at the first, second, third & Final B.D.S examinations, if such examinations have been passed from the same university; or

(iv) Combination of (i) and (iii);

Staffing Pattern :

The diploma courses shall be conducted only in postgraduate departments in a BDS recognized and MDS approved / recognized Institution by the Dental Council of India. For each seat of Post Graduate Diploma Course one additional reader is required.

A department, which does not have the above staff pattern, shall not start a postgraduate diploma course in that specialty.

1. Examination :

Eligibility : The following requirements should be fulfilled by every candidate to become eligible to appear for the final examination.

Attendance : Every candidate should have fulfilled the minimum attendance prescribed by Dental Council of India and respective University (80% of the attendance during each academic year of the diploma course)

Progress and conduct : Every candidate should have participated in seminars, journal review meeting symposia, conferences, case presentations, clinics and didactic lectures during each year as designed by the concerned department.

Work diary and log book : Every candidate shall maintain a work diary and log book for recording his/her participation in the training programmers conducted by the department. The work diary and log book shall be verified and certified by the Head of the Department and Head of the institution. The certification of satisfactory progress is based on the work diary and log book.

2. University Examination :

There shall be one examination at the end of 2 years.

The universities shall hold examinations twice a year with a minimum gap of four months between the two examinations. The university examination shall have the following components-

a) Written
b) Clinical and / or Practical
c) Viva Voce or oral examination.

Written Examination :

The written examination shall consist of three papers, out of which two shall be pertaining to the specialty; one in Applied Basic Sciences. Each paper shall be of three hours duration and shall include recent advances.

Clinical / Practical Examination :
It should aim at examining clinical skills and competence of candidates for undertaking independent work as a specialist. The actual format of clinical examination in various specialties could be worked out by various universities making sure that the candidate is given ample opportunity to perform various clinical procedures. The council desire that the actual format is made know to the students prior to the examination well in advance by the respective universities.

Viva voce Examination :
Viva voce examination shall aim at assessing depth of knowledge, logical reasoning, confidence and verbal communication skills.
The Council desires that only tow examiners conduct the viva voce at a time as two teams, each team for 20 minutes. When one examiner is conducting the viva, the other examiner could make a note of the questions asked and the performance level to enable proper assessment and award of marks.

Distribution of Marks at the University Examination :

Theory :

Paper - I	100 marks
Paper – II	100 marks
Paper – III	100 marks
Total	300 marks

Clinical Examination : 200 marks
Viva – voce : 100 marks

Examiners : There shall be at least three examiners in each subject. Out of them two shall be external examiners and one internal examiner. The qualification and teaching experience for appointment of an examiner shall be as laid down by the Dental Council of India and the respective university.

Valuation of answer Books : All the answer books shall be valued by all the three examiners and the average marks will be computed.

Criteria for declaring pass :

A candidate is declared successful in the University Examination when he or she secure not less than 50% marks in each head of passing separately which shall include theory including viva voce and practical including clinical examination (i.e., 50% of the total marks allotted in each of the theory paper and viva voce and 50% of the total marks in the clinical examination) and 50% in aggregate. In other words, the candidate should secure 200 out of 400 marks (300 in theory and 100 for viva voce) and 100 out of 200 in practical examination. A candidate who secures less than this shall be declared to have failed in the examination. A candidate who failed and has secured less than 50% marks has to take the whole examination (namely theory, practical and oral examination).

A candidate who is declared successful in the Diploma Examination shall be granted a P.G. Diploma in the respective Specialty by the University.

Infrastructure & functional requirements :

In addition to the existing facilities for the training of postgraduate students all the postgraduate departments running diploma courses shall provide for each diploma admission an additional dental chair and unit and other such instruments, equipments as required for the clinical training.

SYLLABUS FOR PG DIPLOMA

Human values, ethical practice and communication abilities:

- Adopt ethical principles in all aspects of practice.
- Professional honesty and integrity are to be fostered.
- Patient care is to be delivered irrespective of social status, caste, creed or religion of the patient.
- Develop communication skills, in particular and skill to explain various options available in management and to obtain a true informed consent from patient.
- Provide leadership and get the best out of his team in a congenial working atmosphere.
- Apply high moral and ethical standards while carrying out human or animal research.
- Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed.
- Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.

The following are the specialities of Diploma Courses:

i) Prosthodontics, Crown Bridge, Aesthetic Dentistry and Oral Implantology
ii) Periodontology and Oral Implantology
iii) Oral & Maxillofacial Surgery and Oral Implantology
iv) Conservative, Endodontics & Aesthetic Dentistry
v) Orthodontics & Dento-facial Orthopedics
vi) Public Health Dentistry
vii) Paedodontics & Preventive Dentistry
viii) Oral Medicine & Radiology

1. PROSTHODONTICS, CROWN BRIDGE AND ORAL IMPLANTOLOGY

First and second semesters:

A: Applied basic sciences

A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Microbiology and Virology Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.

An adequate knowledge in biostatistics, research methodology and use of computers. To develop necessary teaching skills in Prosthodontics including crown and bridge and implantology.

B: Preclinical work

a) Pre-clinical induction to laboratory technology. Basic tooth reduction of ivorine teeth for various designs of Kennedy classification

b) Surveying of dental models and planning of removable partials.

c) Fabrication of custom trays for elastomeric impression materials.
d) Reduction of teeth for various fixed restorations viz. complete veneer crowns, partial veneer crowns, radicular crowns.
e) Casting of metal frame work and various metal crowns.
f) Manipulation of dental ceramic material.

Third and fourth semesters:

A: Clinical work

a) Treatment of patients with missing teeth
b) Impression procedures
c) Inter occlusal records
d) Jaw relation record
e) Choice of jaw simulator device
f) Rationale of treatment design
g) Insertion of prosthesis

B: Presentation of clinical cases for different removable and fixed treatment

C: Presentation of at least six seminars and six journal clubs on given topics in two years

D: Internal assessment examinations three months before university examinations

Mandatory clinical work

Ceramics – laminates, inlays, onlays – 05
FVC for metal – 05
FVC for ceramic – 05
Precious metal crown – 01
Telescopic crowns – 02
Crown as implant supported prosthesis – 01
Cast porcelain (three unit) – 02
Cast metal (three unit) – 02
Porcelain fused metal (anterior and posterior) – 05
Multiple abutment (maxillary and mandibular full arch) – 02
Interim provisional restorations (crowns & FPDs) – 05
Provisional partial denture prosthesis – 05
Cast removable partial denture (for Kennedy's applegate classification with modification) – 02
Immediate RPD – 02
Partial denture for medically compromised and handicapped patients – 01
Single dentures – 02
Overlay dentures – 02
Complete denture prosthesis (for abnormal ridge relation, ridge form and ridge size) – 02
Complete dentures for medically compromised & handicapped patients – 02
Tooth and tooth surface restoration, crowns, fixed prosthesis, removable prosthesis for geriatric patients - 02
Full mouth rehabilitation – restoration of esthetics and function of stomatognathic system – 01
Management of failed restoration- removable prosthesis – 05
Crowns and fixed prosthesis – 02
Restoration failure due to age changes - 01

ORAL IMPLANTOLOGY

First and second semesters:

A: Applied basic sciences

A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Microbiology and Virology
Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.
An adequate knowledge in biostatistics, research methodology and use of computers.

B: Material Sciences

Concept of biological compatibility of materials Metal selection and surface characteristics
Hydroxyapatite and other bone substitutes Metallurgy
Ceramics & other veneering materials

C: Osseointegration Introduction to osseointegration Nature of implant attachments Bone tissue responses Functional response to implants Design of implant systems

D: Special emphasis on: Control of hemorrhage Suturing techniques
Post operative management
Prevention and management of complications Surgical aspects of placement of intraoral fixtures
Extra oral fixtures
Clinical biomechanics
Temporary prosthesis
Prosthetic considerations for second stage surgery
Screw retained prosthesis
Occlusal considerations for implant-supported prosthesis
Impression procedures Jaw relations Temporary try-in
Fabrication of supra structure Insertion of prosthesis Maintenance of dental implants.
Third and fourth semesters: A: Clinical work
Patient selection and preparation (surgical, prosthetic and periodontal considerations) – 05 cases
Mucoperiosteal flaps - 05
Temporary prosthesis - 02
Screw retained prosthesis - 02
Fabrication of supra structure – 02
Single unit implant – 02
Multiple unit implant - 01
B: Presentation of clinical cases
C: Presentation of at least six seminars and six journal clubs on given topics in two years
D: Internal assessment examinations three months before university examinations

2. PERIODONTOLOGY & ORAL IMPLANTOLOGY

First and second semesters:
A: Applied basic sciences
A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Immunology, Microbiology and Virology Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.
An adequate knowledge in biostatistics, research methodology and use of computers.
Third and fourth semesters:
A: Clinical work
Complete case history and treatment planning – 05 cases
Applied periodontal indices – 05 cases
Scaling and root planning – hand – 10 cases, ultrasonic – 10 cases
Curettage – 05 cases Gingivectomy – 10 cases Gingivoplasty – 05 cases
Local drug delivery techniques
Pocket therapy
Muco-gingival surgeries
Implants – 02
Management of perio-endo problems – 03 cases
Occlusal adjustments – 05 cases
Perio splints – 05 cases
Guided tissue regeneration cases - 05
Treatment of at least five full mouth periodontally involved cases
B: Presentation of treated clinical cases
C: Presentation of at least six seminars and six journal clubs on given topics in two years
D: Internal assessment examinations three months before university examinations

ORAL IMPLANTOLOGY

First and second semesters:
A: Applied basic sciences
A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Microbiology and Virology
Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science,

congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.
An adequate knowledge in biostatistics, research methodology and use of computers.
B: Material Sciences
Concept of biological compatibility of materials Metal selection and surface characteristics Hydroxyapatite and other bone substitutes Metallurgy
Ceramics & other veneering materials
C: Osseointegration Introduction to osseointegration Nature of implant attachments Bone tissue responses Functional response to implants Design of implant systems
D: Special emphasis on: Control of hemorrhage Suturing techniques
Post operative management
Prevention and management of complications Surgical aspects of placement of intraoral fixtures
Extra oral fixtures
Clinical biomechanics
Temporary prosthesis
Prosthetic considerations for second stage surgery
Screw retained prosthesis
Occlusal considerations for implant-supported prosthesis
Impression procedures Jaw relations Temporary try-in
Fabrication of supra structure Insertion of prosthesis Maintenance of dental implants.
Third and fourth semesters: A: Clinical work
Patient selection and preparation (surgical, prosthetic and periodontal considerations) – 05 cases
Mucoperiosteal flaps - 05
Temporary prosthesis - 02
Screw retained prosthesis - 02
Fabrication of supra structure – 02
Single unit implant – 02
Multiple unit implant - 01
B: Presentation of clinical cases
C: Presentation of at least six seminars and six journal clubs on given topics in two years
D: Internal assessment examinations three months before university examinations

3.ORAL & MAXILLOFACIAL SURGERY & ORAL IMPLANTOLOGY
First and second semesters:
A: Applied basic sciences
A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Immunology, Microbiology and Virology Pharmacology with special emphasis on drugs used in oral and maxillofacial surgery, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.
Head and Neck:- Principal of Surgery, Emergencies, Infections, Imagining, Cysts, Tumors, Fractures, Nerve Diseases and Complications
General outline of TMJ diseases and orthognathic cases
An adequate knowledge in biostatistics, research methodology and use of computers.
Third and fourth semesters:
A: Clinical work
Injection IM and IV – 25, 10
Incision and drainage of an abscess – 05
Surgical extraction – 10
Pre prosthetic surgery – 10
OAF closure – 03
Cyst enucleation – 05
Periapical surgery – 02
Removal of salivary calculi – 02
Mandibular fractures – 06
Mid facial fractures – 03

Benign Surgery – 03
Orthognathic surgery – 02
Harvesting bone & cartilage grafts – 03
TMJ surgery – 01
Jaw resections – 02 (Assisted) Onco surgery – 02(assisted) Cleft lip and palate – 06
B: Presentation of treated clinical cases
C: Presentation of at least six seminars and six journal clubs on given topics in two years
D: Internal assessment examinations three months before university examinations

ORAL IMPLANTOLOGY

First and second semesters:
A: Applied basic sciences
A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Microbiology and Virology
Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.
An adequate knowledge in biostatistics, research methodology and use of computers.
B: Material Sciences
Concept of biological compatibility of materials Metal selection and surface characteristics
Hydroxyapatite and other bone substitutes Metallurgy
Ceramics & other veneering materials
C: Osseointegration Introduction to osseointegration Nature of implant attachments Bone tissue responses Functional response to implants Design of implant systems
D: Special emphasis on: Control of hemorrhage Suturing techniques
Post operative management
Prevention and management of complications Surgical aspects of placement of intraoral fixtures
Extra oral fixtures
Clinical biomechanics
Temporary prosthesis
Prosthetic considerations for second stage surgery
Screw retained prosthesis
Occlusal considerations for implant-supported prosthesis
Impression procedures Jaw relations Temporary try-in
Fabrication of supra structure Insertion of prosthesis Maintenance of dental implants.
Third and fourth semesters: A: Clinical work
Patient selection and preparation (surgical, prosthetic and periodontal considerations) – 05 cases
Mucoperiosteal flaps - 05
Temporary prosthesis - 02
Screw retained prosthesis - 02
Fabrication of supra structure – 02
Single unit implant – 02
Multiple unit implant - 01
B: Presentation of clinical cases
C: Presentation of at least six seminars and six journal clubs on given topics in two years
D: Internal assessment examinations three months before university examinations

4.CONSERVATIVE, ENDODONTICS & AESTHETIC DENTISTRY

First and second semesters:
A: Applied basic sciences
A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Immunology, Microbiology and Virology
Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.
An adequate knowledge in biostatistics, research methodology and use of computers.
B: Dental materials

a) Impression materials used in dentistry including duplicating materials
b) Synthetic resins used in dentistry
c) Metals and alloys-structure and behaviour including important physical properties
d) Dental cements-classifications, composition, manipulation, properties and uses
e) Dental porcelain including porcelain fused to metal. Porcelain furnace & fusing.
f) Composite and porcelain polishing.
g) Biological aspects of restorative materials

C: Radiology- technique of intra oral and extra oral radiography and normal anatomical landmarks

D: Dental material science and armamentarium relevant to conservative (operative) dentistry & Endodontics

E: Pre-clinical work

Cavity preparation for various types of restorations including inlays, onlays etc. Matrices
Various endodontic and restorative exercises to be done on extracted teeth.

Third and fourth semesters:

A: Clinical work

Composite restorations – 15
GIC restorations – 15
Complex amalgam restorations – 02
Composite inlay and veneers – 02
Ceramic jacket crowns – 02
Post and core for anterior teeth – 06
Post and core for posterior teeth – 06
Cast gold inlay - 02
Bleaching vital – 02
Bleaching non vital – 02
RCT anterior – 20
RCT posterior – 20
Endo surgery – 02
Management of endo perio problems - 02

B: Presentation of treated clinical cases

C: Presentation of at least six seminars and six journal clubs on given topics in two years **D:** Internal assessment examinations three months before university examinations

AESTHETIC DENTISTRY

First and second semesters:

A: Applied basic sciences

A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Microbiology and Virology
Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.
An adequate knowledge in biostatistics, research methodology and use of computers.

B: Oral anatomy, Physiology, Histology and embryology

Active and passive eruption of teeth and shedding of primary teeth
Differences between primary and permanent teeth
Chemical composition & physical properties of enamel, dentine, cementum and bone
Identification of teeth
Carvings of permanent teeth including drawing in journal
Introduction to aesthetics
Structural aesthetic rule
Aesthetics and relationship to function

C: Preclinical work

Dental materials:

a) Impression materials used in dentistry including duplicating materials
b) Synthetic resins used in dentistry
c) Metals and alloys-structure and behaviour including important physical properties
d) Dental cements-classifications, composition, manipulation, properties and uses
e) Dental porcelain including porcelain fused to metal. Porcelain furnace & fusing.

f) Composite and porcelain polishing.

Third and fourth semesters:

A: Clinical work

a) Aesthetic management of the dentogingival unit
b) Gingival recessions
c) Mastering the art of tissue management
d) Metal ceramic framework design
e) Porcelain veneers: an aesthetic therapeutic alternative
f) Radiology: technique of intra-oral and extra-oral radiography and normal anatomic landmarks

B: Presentation of clinical cases for different aesthetic requirements

C: Presentation of at least six seminars and six journal clubs on given topics in two years

D: Internal assessment examinations three months before university examinations

5.ORTHODONTICS & DENTOFACIAL ORTHOPEDICS

First and second semesters:

A: Applied basic sciences with relevance to orthodontics

A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Immunology, Microbiology and Virology Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.

An adequate knowledge in biostatistics, research methodology and use of computers.

B: Basic orthodontic subjects

Facial growth
Normal and abnormal development of the dentition
Tooth movements and facial orthopedics Radiology and other imaging techniques Cephalometric
Orthodontic materials
Orthodontic biomechanics

C: General orthodontic subjects Aetiology of malocclusion Diagnostic procedures
Diagnostic assessment, treatment objectives and treatment planning
Growth and treatment analysis
Long term effect of orthodontic treatment Iatrogenic effects of orthodontic treatment
Epidemiology of orthodontics

D: Orthodontic techniques

Removable appliances Functional appliances Extra-oral appliances Fixed appliances Retention appliances

E: Pre-clinical exercises

Basic wire bending exercises
Active and passive components of removable appliances
Soldering exercises
Study model preparations
Appliance fabrication
Cephalometric tracings and analyses Basic skill in clinical photography Fixed appliance exercise

Third and fourth semesters:

A: Clinical work

Treatment of patients with various types of malocclusions utilizing different orthodontic techniques with both removable and fixed appliances.

Each student to start with a minimum of 25 new cases and a minimum of 10 transferred cases

B: Presentation of at least three treated clinical cases

C: Presentation of at least six seminars and six journal clubs on given topics in two years

D: Internal assessment examinations three months before university examinations

6.PUBLIC HEALTH DENTISTRY & PREVENTIVE DENTISTRY

All the semesters will include time devoted towards but not limited to understanding and learning to implement public health concepts and philosophies and dental public health in specific. Some important topics would be epidemiology, survey procedures, oral biology and genetics, evaluation of quality of dental care, preventive dentistry, research methodology and

dental statistics etc.

First and second semesters

HEALTH INFORMATICS – basic understanding of computers and its components, operating software(Windows), Microsoft office, preparation of teaching materials like slides, project, multimedia
knowledge.

RESEARCH METHODOLOGY – definitions, types of research, designing written protocol for
research, objectivity in methodology, quantification, records and analysis.

BIOSTATISTICS – introduction, applications, uses and limitations of bio – statistics in Public Health
dentistry, collection of data, presentation of data, measures of central tendency, measures of dispersion, methods of summarizing, parametric and non parametric tests of significance, correlation
and regression, multivariate analysis, sampling and sampling techniques – types, errors, bias, trial
and calibration

COMPUTERS – Basic operative skills in analysis of data and knowledge of multimedia.

Public Health

1. PUBLIC HEALTH:

• Definition, concepts and philosophy of dental health
• History of public health in India and at international level
• Terminologies used in public health

2. HEALTH:

• Definition, concepts and philosophy of health
• Health indicators
• Community and its characteristics and relation to health

3. DISEASE:

• Definition, concepts
• Multifactorial causation, natural history, risk factors
• Disease control and eradication, evaluation and causation, infection of specific diseases
• Vaccines and immunization

4. GENERAL EPIDEMIOLOGY:

• Definition and aims, general principles
• Multifactorial causation, natural history, risk factors
• Methods in epidemiology, descriptive, analytical, experimental and classic epidemiology of specific diseases, uses of epidemiology
• Duties of epidemiologist
• General idea of method of investigating chronic diseases, mostly non-infectious nature, epidemic, endemic, and pandemic.
• Ethical conversation in any study requirement
• New knowledge regarding ethical subjects
• Screening of diseases and standard procedures used

5. ENVIRONMENTAL HEALTH:

• Impact of important components of the environment of health
• Principles and methods of identification, evaluation and control of such health hazards
• Pollution of air, water, soil, noise, food
• Water purification, international standards of water
• Domestic and industrial toxins, ionizing radiation
• Occupational hazards
• Waster disposal- various methods and sanitation

6. PUBLIC HEALTH EDUCATION:

• Definition, aims, principles of health education
• Health education, methods, models, contents, planning health education programs

7. PUBLIC HEALTH PRACTICE AND ADMINISTRATION SYSTEM IN INDIA.

8. ETHICS AND JURISPRUDENCE:

• Basic principles of law
• Contract laws- dentist – patient relationships & Legal forms of practice
• Dental malpractice

• Person identification through dentistry
• Legal protection for practicing dentist
• Consumer protection act

9. NUTRITION IN PUBLIC HEALTH:

• Study of science of nutrition and its application to human problem
• Nutritional surveys and their evaluations
• Influence of nutrition and diet on general health and oral health, dental caries, periodontal disease and oral cancers
• Dietary constituents and cariogenecity
• Guidelines for nutrition

10. BEHAVIORAL SCIENCES:

• Definition and introduction
• Sociology: social class, social group, family types, communities and social relationships, culture, its effect on oral health.
• Psychology: definition, development of child psychology, anxiety, fear and phobia, intelligence, learning, motivation, personalities, fear, dentist-patient relationship, modeling and experience

11. HOSPITAL ADMINISTRATION:

• Departmental maintenance, organizational structures
• Types of practices
• Biomedical waste management

12. HEALTH CARE DELIVERY SYSTEM:

• International oral health care delivery systems – Review
• Central and state system in general and oral health care delivery system if any
• National and health policy
• National health programme
• Primary health care – concepts, oral health in PHC and its implications
• National and international health organizations
• Dentists Act 1928, Dental council of India, Ethics, Indian Dental Association
• Role of W.H.O. and Voluntary organizations in Health Care for the Community

13. ORAL BIOLOGY AND GENETICS:

• A detailed study of cell structure
• Introduction to Genetics, Gene structure, DNA, RNA
• Genetic counseling, gene typing
• Genetic approaches in the study of oral disorders
• Genetic Engineering - Answer to current health problems

Third and fourth semesters

Dental Public Health

1. DENTAL PUBLIC HEALTH:

• History
• Definition and concepts of dental public health
• Differences between clinical and community dentistry
• Critical review of current practice
• Dental problems of specific population groups such as chronically ill, handicapped and institutionalized group

2. EPIDEMIOLOGY OF ORAL DISEASES AND CONDITIONS:

• Dental caries, gingival, periodontal disease malocclusion, dental Fluorosis, oral cancer, TMJ disorders and other oral health related problems.

3. ORAL SURVEY PROCEDURES:

• Planning
• Implementation
• WHO basic oral health methods 1997
• Indices for dental diseases and conditions
• Evaluation

4. DELIVERY OF DENTAL CARE:

• Dental person power – dental auxiliaries
• Dentist – population ratios,

• Public dental care programs
• School dental health programs- Incremental and comprehensive care
• Private practice and group practice
• Oral health policy – National and international policy

5. PAYMENT FOR DENTAL CARE:

• Prepayment
• Post-payment
• Reimbursement plans
• Voluntary agencies
• Health insurance

6. EVALUATION OF QUALITY OF DENTAL CARE:

• Problems in public and private oral health care system program
• Evaluation of quality of services, governmental control

7. PREVENTIVE DENTISTRY:

• Levels of prevention
• Preventive oral health programs screening, health education and motivation
• Prevention of all dental diseases-dental caries, periodontal diseases, oral cancer, malocclusion and Dentofacial anomalies
• Role of dentist in prevention of oral diseases at individual and community level.
• Fluoride
-History
-Mechanism of action
-Metabolism
-Fluoride toxicity
-Fluorosis
-Systemic and topical preparations
-Advantages and disadvantages of each
-Update regarding Fluorosis
-Epidemiological studies
-Methods of fluoride supplements
-Defluoridation techniques
• Plaque control measures-
-Health Education
-Personal oral hygiene
-Tooth brushing technique
-Dentifrices, mouth rinses
• Pit and fissure sealant, ART
• Preventive oral health care for medically compromised individual
• Update on recent preventive modalities
• Caries vaccines
• Dietary counseling

8. PRACTICE MANAGEMENT:

• Definition
• Principles of management of dental practice and types
• Organization and administration of dental practice
• Ethical and legal issues in dental practice
• Current trends

CLINICAL TRAINING-

7.<u>PEDODONTICS & PREVENTIVE DENTISTRY</u>

First and second semesters:

A: <u>Applied basic sciences relevant to Pedodontics</u>

A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Immunology, Microbiology and Virology Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.

An adequate knowledge in biostatistics, research methodology and use of computers.

B: Pre-clinical exercises including but not limited to wire bending, wax carvings, restorative and endodontic exercises on extracted teeth
C: Special emphasis on: Child development
Behaviour management
Pediatric dental practice
Preventive & interceptive orthodontics Nutrition and child dental health Preventive dentistry
Third and fourth semesters:
A: Clinical work
Clinical training including postings in pediatric medicine and surgery, oral surgery and orthodontics.
Special cases with complete records – 10
Preventive dentistry cases – 5
Stainless steel crowns – 20
Pulp therapy cases – 75
Space maintainers – 20 (10 fixed and 10 removable)
B: Presentation of treated clinical cases
C: Presentation of at least six seminars and six journal clubs on given topics in two years
D: Internal assessment examinations three months before university examinations

8. ORAL MEDICINE & RADIOLOGY
First and second semesters:
A: Applied basic sciences relevant to Oral Medicine & Radiology
A thorough knowledge of the applied aspects of Anatomy, Embryology, Histology specific to head and neck, Physiology, Biochemistry, Pathology, Immunology, Microbiology and Virology Pharmacology, Health and systematic diseases principles in surgery medicine and Anesthesia, Nutrition, Behavioral sciences, age changes, genetics, Dental material science, congenital defects and syndromes and anthropology, biomaterial sciences, bio-engineering and biomedical and research methodology.
An adequate knowledge in biostatistics, research methodology and use of computers.
B: Special emphasis on:
Methods of clinical diagnosis of oral & systemic diseases including modern diagnostic techniques
Laboratory investigations
Oral manifestations of systemic diseases
Oro-facial pain
Psychosomatic aspects of oral diseases
Congenital and hereditary disorders involving tissues of oro-facial region
C: Oral & maxillofacial radiology: Basics of radiology
Biological effects of radiology
Various techniques in oral and maxillofacial radiology including advances
Third and fourth semesters:
A: Clinical training
Clinical training including postings in general medicine.
B: Presentation of special clinical cases observed and diagnosed with details like biopsies conducted etc.
Case histories – 50
Special cases – 10
Intra oral periapical radiographs – 50
Bitewing radiographs – 25
Occlusal view – 25
Extra oral radiographs of different views - 40
C: Presentation of at least six seminars and six journal clubs on given topics in two years
D: Internal assessment examinations three months before university examinations

ETHICS (20 hrs. of instruction)
Introduction:
There is a definite shift now from the traditional patient and doctor relationship and delivery of dental care. With advances in science and technology and the increasing needs of the patient, their families and community, there is a concern for the health of the community as a

whole. There is a shift to greater accountability to the society. Dental specialists like other health professionals are confronted with many ethical problems. It is therefore absolutely necessary for each and every one in health care delivery to prepare themselves to deal with these problems. To accomplish this and develop human values the Council desires that all the trainees undergo ethical sensitisation by lectures or discussion on ethical issues, discussion of cases with an important ethical component.

Course content: Introduction to ethics –

-what is ethics?

-What are values and norms?

-How to form a value system in one's personal and professional life?

-Hippocratic oath.

- Declaration of Helsinki, WHO declaration of Geneva, International code of ethics, DCI Code of ethics.

Ethics of the individual –

The patient as a person. Right to be respected Truth and confidentiality Autonomy of decision

Doctor Patient relationship

Profession Ethics –

Code of conduct

Contract and confidentiality

Charging of fees, fee splitting

Prescription of drugs

Over-investigating the patient

Malpractice and negligence

Research Ethics –

Animal and experimental research/humanness

Human experimentation

Human volunteer research-informed consent

Drug trials

Ethical workshop of cases Gathering all scientific factors Gathering all value factors

Identifying areas of value – conflict, setting of priorities

Working our criteria towards decisions