



**SYLLABUS
FOR
POSTGRADUATE DIPLOMA
(PG DIPLOMA)
(SCREENING TEST FOR INDIAN NATIONALS
WITH FOREIGN DENTAL QUALIFICATIONS)**

DENTAL COUNCIL OF INDIA
(Ministry of Health & Family Welfare, Govt. of India)

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 the 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

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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, Imaging, 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.

7. PEDODONTICS & PREVENTIVE DENTISTRY

First and second semesters:

A: Applied basic sciences relevant to Pedodontics

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

9. 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



DENTAL COUNCIL OF INDIA

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