

Accreditation Standards for the BDS
(Bachelor of Dental Surgery)

**Degree Program for Institutions
Admitting 50-75 Students
Annually
2012**



**Nepal Medical Council
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Contents

1. Conceptual framework
2. Competencies of the BDS Graduates
3. Quality assurance of the BDS graduates
4. An overview of BDS Program
5. Core Curriculum (Syllabus)
6. Teaching-learning methodology
7. Assessment of Students
8. Criteria for admission to BDS Program
9. Faculty requirement
- 10.The Dental College
- 11.The teaching Dental and Medical Hospital
- 12.Administrative Section
- 13.Medical hospital
- 14.Annex

Accreditation Standards for the BDS (Bachelor of Dental Surgery) Degree Program for Institutions Admitting 50-75 Students Annually

1. Conceptual framework:

Dental surgeons are an integral part of the total medical profession involved in the supervision and care of the comprehensive health of the people through oral health management. Nepal has made a significant progress in assuring quality of Dental Education which, in turn, has contributed to enhancing the quality of health care services in Nepal. The Nepal Medical Council (NMC) remains committed to learning and benefiting from the national and international experiences and best practices. The NMC believes that the valuable lessons thus learned should be incorporated in its guiding principles in order to further improve the quality of dental education in Nepal. In light of the continuing mismatch between health system needs and the responses of academic dental/medical institutions and the rising public aspiration for better health care, it is imperative that the NMC keeps on taking appropriate measures to address the emerging challenges in the area of quality assurance in dental education. This is not just an issue of paramount importance but is also the mandate that the NMC is required to fulfill.

In line with this imperative, the NMC has prepared document to make the underlying principles of the accreditation of undergraduate dental education as objective, coherent, explicit and transparent as possible. The remaining part of this document is devoted to that very end.

The fundamental purpose of dental education is to produce high quality dental practitioners who are willing and able to meet the existing and emerging challenges of the national health care system.

In order to meet this goal all the dental colleges or medical colleges running dental programme in Nepal should adopt the contemporary global trends and implement innovative approaches in dental/medical education such as SPICES¹ , PBL², CPC³ etc.

The BDS curriculum should reflect the core principles advocated by the World Dental Federation (FDI), General Dental Council (GDC) – UK, Asia Pacific Dental Federation (APDF) and the Dental/Medical Councils of SAARC Countries including Nepal Medical Council.

¹SPICES : *S = Student Centered; P = Problem Based; I = Integrated;*

C = Community based; E = Electives; S = Systematic;

²PBL = *Problem Based Learning*

³CPC = *Clinical Presentation Curriculum*

1.1 Goals and Objectives

The dental graduates during training in the institutions 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. The graduate also should understand the concept of community oral health education and be able to participate in the rural health care delivery programmes existing in the country.

OBJECTIVES:

The objectives are dealt under three headings (a) Knowledge and understanding (b) skills and (c) Attitudes.

A. KNOWLEDGE AND UNDERSTANDING:

The graduate should acquire the following during the period of training.

- a. Adequate knowledge of the scientific foundations on which dentistry is based and good understanding of various relevant scientific methods, principles of biological functions and be able to evaluate and analyze scientifically various established facts and data.
- b. Adequate knowledge of the development, structure and function of the teeth, mouth and jaws and associated tissues both in health and disease and their relationship and effect on general state of health and also bearing on physical and social well being of the patient.

- c. Adequate knowledge of clinical disciplines and methods which provide a coherent picture of anomalies, lesions and diseases of the teeth, mouth and jaws and preventive diagnostic and therapeutic aspects of dentistry.
- d. Adequate clinical experience required for general dental practice.
- e. Adequate knowledge of the constitution, biological function and behavior of persons in health and sickness as well as the influence of the natural and social environment on the state of health in so far as it affect dentistry.

B. SKILLS:

A graduate should be able to demonstrate the following skills necessary for practice of dentistry.

- a. Able to diagnose and manage various common dental problems encountered in general dental practice keeping in mind the expectations and the right of the society to receive the best possible treatment available wherever possible.
- b. Acquire the skill to prevent and manage complications if encountered while carrying out various surgical and other procedures.
- c. Possess skill to carry out certain investigative procedures and ability to interpret laboratory findings.
- d. Promote oral health and help prevent oral diseases where possible.
- e. Competent in the control of pain and anxiety among the patients during dental treatment.

C. ATTITUDE:

A graduate should develop during the training period the following attitudes.

- a. Willing to apply the current knowledge of dentistry in the best interest of the patients and the community.
- b. Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life.
- c. Seek to improve awareness and provide possible solutions for oral health problems and needs through out the community.

- d. Willingness to participate in the Continuing Dental education (CDE) Programmers to update the knowledge and professional skill from time to time.
- e. To help and participate in the implementation of the national oral health policy.

2. **The competencies of the BDS Graduate :**

Upon completion of the BDS program including one year of compulsory rotating internship the Dental Graduate, who is to be registered by the NMC as Dental Practitioner, must be competent to:

General Skills

- Apply knowledge & skills in day to day practice
- Apply principles of ethics
- Analyze the outcome of treatment
- Evaluate the scientific literature and information to decide the treatment
- Participate and involve in professional bodies
- Self assessment & willingness to update the knowledge & skills from time to time
- Involvement in simple research projects
- Minimum proficiency in IT to enhance knowledge and skills
- Refer patients for consultation and specialized treatment
- Basic study of forensic Odontology and geriatric dental Problems

Practice Management

- Evaluate practice location, population dynamics & reimbursement mechanism
- Co-ordinate & supervise the activities of allied dental health personnel
- Maintain all records
- Implement & monitor infection control and environmental safety programs
- Practice within the scope of one's competence

Communication & Community Resources

- Assess patients goals, values and concerns to establish rapport and guide patient care
- Able to communicate freely, orally and in writing with all concerned
- Participate in improving the oral health of the individuals through community activities.

Patient Care - Diagnosis

- Obtaining patient's history in a methodical way
- Performing thorough clinical examination
- Selection and interpretation of clinical, radiological and other diagnostic information
- Obtaining appropriate consultation
- Arriving at provisional, differential and final diagnosis

Patient Care - Treatment Planning

- Integrate multiple disciplines into an individual comprehensive
- sequence treatment in using diagnostic and prognostic information
- Able to order appropriate investigations

Patient Care - Treatment

- Recognition and initial management of medical emergencies that may occur during
Dental treatment
- Perform basic cardiac life support
- Management of pain including post operative
- Administration of all forms of local anaesthesia
- Administration of intra muscular and venous injections
- Prescription of drugs, pre operative, prophylactic and therapeutic requirements
- Uncomplicated extraction of teeth
- Trans-alveolar extractions and removal of simple impacted teeth
- Minor oral surgical procedures
- Management of Oro-facial infections
- Simple orthodontic appliance therapy
- Taking, processing and interpretation of various types of intra oral radiographs

- Various kinds of restorative procedures using different materials available
- Simple endodontic procedures
- Removable and fixed Prosthodontics
- Various kinds of periodontal therapy

3. Quality assurance of the BDS Graduate:

Since safeguarding the health of the public through ensuring the proper quality assurance of the dental education is its fundamental duty, the NMC shall :

- Define the criteria for accreditation of undergraduate dental education program (BDS).
- execute periodic on site inspection of the dental/medical colleges to ensure that the defined criteria referred to in 3.1 are adequately met and assess the quality of the program being implemented ; and
- Administer the Licensing Examination to all dental graduates from within and outside Nepal.

4. Overview of the BDS Program:

The BDS program consists of a minimum of four and a half year academic course followed by one year of compulsory rotating internship.

The core curriculum for the BDS program shall be composed of Basic Medical Sciences (Human Anatomy, Physiology, Biochemistry, Microbiology, Pathology and Pharmacology), General Medicine, General Surgery, Anesthesiology, The Dental Science includes Dental Materials, Oral biology, Oral Pathology,

Community Dentistry, Forensic Odontology, Oral Medicine and Radiology, Orthodontics, Pedodontics, Prosthodontics, Periodontics, Oral surgery, Conservative Dentistry and Endodontics.

The Compulsory Rotating Internship shall be of one calendar year as per the NMC guidelines.

5. The Core Curriculum:

The aim of the Core curriculum is to provide a broader framework for universities/dental/ medical colleges to develop their own curriculum, defining specific learning objectives together with teaching hours in each discipline. The curriculum should be student-centered, integrated within and between basic dental/medical sciences and clinical subjects preferably with the use of community-based and problem-based learning methods.

The horizontal integration of basic science subjects should be achieved by the concurrent integrated teaching/learning of human anatomy, physiology, biochemistry, pathology, microbiology, pharmacology and community dental health sciences. Vertical integration of basic dental/medical science subjects should be acquired through early clinical exposure.

Such a curriculum should encompass the following components:

- I. Professionalism
 - .Professional Behaviour
 - Ethics and Jurisprudence
- II. Communication and interpersonal skills
- III. Knowledge base, information handling and critical thinking
 - Basic biomedical, technical and clinical sciences
 - Acquiring and Using Information technologies
- IV. Clinical information gathering
- V. Diagnosis and treatment planning

VI. Establishment and maintenance of Oral Health

- Oral Medicine and Radiology
- Periodontics
- Conservative dentistry and Endodontics
- Oral and Maxillofacial Surgery
- Prosthodontics and Maxillofacial Prosthetics
- Orthodontics and Dentofacial Orthopaedics
- Pedodontics and Preventive Dentistry
- Community Dentistry
- Implant Dentistry
- Patient Education and Management of Primary Care
- Emergency Treatment, Pain and Anxiety Management

ORAL MEDICINE AND RADIOLOGY

- Able to identify precancerous and cancerous lesions of the oral cavity and refer to the concerned specialty for their management
- Should have an adequate knowledge about common laboratory investigations and interpretation of their results.
- Should have adequate knowledge about medical complications that can arise while Treating systemically compromised patients and take prior precautions/ consent from the concerned medical specialist.
- Have adequate knowledge about radiation health hazards, radiations safety and protection.
- Competent to take intra-oral radiographs and interpret the radiographic findings
- Gain adequate knowledge of various extra-oral radiographic procedures, TMJ radiography and Sialography.
- Be aware of the importance of intra- and extra-oral radiographs in forensic identification and age estimation
- Should be familiar with jurisprudence, ethics and understand the significance of dental records with respect to law

ORAL AND MAXILLOFACIAL SURGERY

- Able to apply the knowledge gained in the basic medical and clinical subjects in the Management of patients with surgical problems
- Able to diagnose, manage and treat patients with basic oral surgical problems
- Have a broad knowledge of maxillofacial surgery and oral implantology
- Should be familiar with legal, ethical and moral issues pertaining to the patient care and communication skills
- Should have acquired the skill to examine any patient with an oral surgical problem in an orderly manner
- Understand and practice the basic principles of asepsis and sterilization
- Should be competent in the extraction of the teeth under both local and general anesthesia
- Competent to carry out certain minor oral surgical procedure under LA like trans-alveolar extraction, frenectomy, dento alveolar procedures, simple impaction, biopsy, etc.
- Competent to assess, prevent and manage common complications that arise during and after minor oral surgery
- Able to provide primary care and manage medical emergencies in the dental office
- Familiar with the management of major oral surgical problems and principles involved in the in-patient management

PERIODONTICS

- Diagnose the patients periodontal problem, plan and perform appropriate periodontal treatment
- Competent to educate and motivate the patient
- Competent to perform thorough oral prophylaxis, sub-gingival scaling, root planning and minor periodontal surgical procedures
- Give proper post treatment instructions and do periodic recall and evaluation
- Familiar with concepts of osseointegration and basic surgical aspects of Implantology

CONSERVATIVE DENTISTRY AND ENDODONTICS

- Competent to diagnose all carious, non- carious tooth lesion and Traumatic tooth injuries.
- Competent to perform restorations of tooth with suitable restorative materials including amalgam , cements composite resins, etc.
- Able to diagnose and appropriately treat pulpally involved teeth (eg. pulp capping procedures etc.)
- Able to perform Root Canal treatment .
- Understand the basic principles of aesthetic dentistry.

COMMUNITY DENTISTRY

- Apply the principles of health promotion and disease prevention
- Have knowledge of the organization and provision of health care in community and in the hospital service
- Have knowledge of the prevalence of common oral health conditions in Nepal.
- Have knowledge of community based preventive measures
- Have knowledge of the social, cultural and environmental factors which contribute to health or illness.
- Administer Oral -hygiene instructions, topical fluoride therapy and pit & fissure sealing. Perform ART, ACT
- Educate patients concerning the etiology and prevention of oral disease and encourage them to assure responsibility for their oral health
- Understand National Oral Health Policies of Nepal.

PROSTHODONTICS

- Able to understand and use various dental materials
- Competent to carry out treatment of conventional complete and partial removable dentures and fabricate fixed partial dentures
- Able to carry out treatment of routine Prosthodontic procedures.
- Familiar with the concept of osseointegration and the value of implant-supported Prosthodontic procedures.
- Understand Oral & Maxillofacial Prosthesis

PEDODONTICS

- Able to instill a positive attitude and behavior in children towards oral health and understand the principles of prevention and preventive dentistry right from birth to adolescence.
- Able to guide and counsel the parents in regards to various treatment modalities including different facets of preventive dentistry.
- Able to treat dental diseases occurring in child patient.
- Able to manage the physically and mentally challenged disabled children effectively and efficiently, tailored to the needs of individual requirement and conditions.
- Understand development disorder and able to refer to concerned specialist

ORTHODONTICS

- Understand about normal growth and development of facial skeleton and dentition.
- Understand aberrations in growth process both dental and skeletal and plan necessary treatment
- Diagnose the various malocclusion categories
- Able to motivate and explain to the patient (and parent) about the necessity of treatment
- Plan and execute preventive orthodontics (space maintainer or space regains)
- Plan and execute interceptive orthodontics (habit breaking appliances)
- Manage treatment of simple malocclusion such as anterior spacing using removable appliances
- Handle delivery and activation of removable orthodontic appliances
- Diagnose and appropriately refer patients with complex malocclusion to the specialist.

6. Teaching-Learning Methodology :

While seeking assurance of the quality of dental graduates without interfering with the academic autonomy of the individual university/dental/medical college, the Nepal Medical Council expects the dental/medical colleges to implement innovative teaching methodology including but not limited to:

- a. Self- directed- learning to inculcate the habit of life – long learning;
- b. Problem- Based- Learning;
- c. Structured Interactive Sessions (SIS) or didactic lectures;
- d. Ambulatory teaching in the Outpatients’ departments for better exposure and understanding of commonly encountered clinical problems;
- e. Experiential training in communication skills and medical ethics;
- f. Acquiring certain clinical examination and procedural skills in a skill laboratory under supervision;
- g. Maintaining log books to document the competencies acquired during practical, clinical placements and community exposures;
- h. Promoting learning in rural community settings (Community Based Learning);
- i. Organ-System based integrated teaching learning and early clinical and community exposures; and
- j. Periodic review of Basic dental/Medical Sciences in relation to relevance to common and important clinical problems.

In order to make students learn better, there must be a provision for periodic teacher trainings and monitoring of teaching/learning activities under the guidance of a dental/Medical Education Unit/Department.

An annual calendar of operation must be developed and followed strictly.

7. Assessment of Students:

- a. The assessment scheme for the BDS program must match with the methods of instruction.
- b. The learning objectives related to the knowledge, skills, attitude, behavior and professional ethics prescribed in the BDS curriculum, need to be assessed using appropriate methods of assessment.

The specific modalities and number of formative and summative assessments including numbers of examiners shall be determined by the concerned universities/ institutions/academies.

Attendance requirement, Progress and Conduct

Attendance requirement shall be as follows:

- a. In theory 75% and 75% in Practical/ clinicals in each subject in each year.
- b. In case of subject in which the instructional programme extends through more than one academic year and hence there is no University examination in the subject (i.e. non-exam going subjects), the attendance requirement shall not be less than 70% in Lectures and Practical/ Clinical. However, at the time of appearing or the

professional examination in the subject the candidate should satisfy the condition.

- c. The failed candidates shall put up a minimum of 75% attendance in the subjects of failure.

8. Criteria for admission to the BDS Program:

Eligibility Criteria:

To be considered eligible for selection to the BDS program, a candidate:

- a. Must have passed 10 + 2 or equivalent qualifications recognized by universities/boards with Physics, Chemistry, Biology (PCB) and having passed with 50% in each subject (PCB) and 50% in aggregate(Grand Total) also.

or

Must have passed Bachelor of Science (B.Sc.) degree recognized by the Universities in Nepal with biological sciences and must have passed one of

- Higher Secondary Education (Science);
 - 10+2 (Science);
 - Intermediate of Science;
 - Or equivalent Science education with Biology, Physics, and Chemistry.
- b. Must have passed in the specific Entrance Examination for the university where admission to the BDS program is sought by the candidate.

Selection of students:

- c. Eligible candidates desirous of pursuing BDS program must take the Entrance Examination conducted by the respective university and should qualify by fulfilling university criteria.
- d. All students including international students must/should take and pass the Entrance Examinations of the respective universities.

9. Faculty Requirement

The role and responsibilities of faculty in running the BDS program is considered to be of utmost importance. The numbers of faculty required in different departments have been determined in a composite way on the basis of the following:

- a. The total number of teaching hours in each of the subjects contained in the existing BDS curriculum.
- b. The total number of student admission annually.
- c. In order to encourage the clinical faculty (with relevant expertise and interest) to contribute towards basic science education, one clinical faculty with postgraduate MD/MS degree or equivalent qualification in clinical disciplines may be designated as a resource faculty member in the relevant basic science departments, for the next five years. They shall be counted as a full time faculty member in that basic science department only. Such a resource faculty member can be appointed by the institution in the basic science departments as necessary and appropriate.
- d. Tutor/Demonstrator/Instructor with BDS or equivalent degree may be appointed as required in each of the departments to assist faculty members in practical/demonstrations. However, they will not be counted as the faculty.

A unit of a clinical department shall be composed of the following:

Professor/Associate Professor – one

Assistant Professor – one

Resident/Dental Surgeon - one

Faculty appointments must be approved by the concerned university authorities before they are employed by the dental colleges.

Eligibility criteria for faculty:

- a. All faculty appointments must be according to the rules of the University/ Institution/Academy. The following are general guidelines for faculty appointments.
- b. All dental/medical personnel must possess a basic university postgraduate degree (Three years master with thesis) or equivalent qualifications in the relevant discipline in order to be eligible to become a faculty member. They should also have specialist registration with the Nepal Medical Council, where applicable.
- c. In basic medical science subjects such as Human Anatomy, Physiology, Pharmacology, Biochemistry and Microbiology non-medical faculty (those faculty who do not have MBBS or equivalent qualification), with M.Sc. (Medical) degree may be appointed to the extent of 30% of the total number of the required faculty positions in a department.
- d. In the case of Community Dental Health Sciences as there are many subjects included in teaching / learning activities, non-medical faculty can be included up to a maximum of 30%.

- e. The qualification of Master of Science; M.Sc. (Medical) in the concerned basic medical science subjects, shall be sufficient for initial faculty appointment.

Designation of the faculty and their criteria:

The nomenclatures of the designation for faculty positions are:

- Professor
- Associate Professor
- Assistant Professor

Wherever possible the department should be headed by Professor if not available Associate professor.

Nepal Medical Council strongly recommends that the designation/nomenclature of the faculties should be uniform among all the Universities/Institutions throughout the country as early as possible.

Minimum Faculty Requirements for 50 admissions annually :

Table 1.

Showing the faculty requirements in basic medical and clinical sciences an annual intake of 50 students.

Departments		Prof./Assoc. Prof.	Asst. Prof./lecturer	Total
Human Anatomy		1	2	3
Physiology		1	1	2
Biochemistry		1	1	2
Microbiology		1	1	2
Pathology		1	1	2
Pharmacology		1	1	2
General medicine		1	1	2
General surgery		1	1	2
General Anesthesia		1		1
Total		9	9	18

Note: Faculty requirement show in the table is exclusively for dental colleges conducting B.D.S. program only

University/Colleges conducting both MBBS and BDS program should have one additional faculty fully dedicated to BDS program for basic science

Table 2.

Showing the faculty requirements in basic medical and clinical sciences an annual intake of 75 students.

Departments	Prof.	Assoc. Prof.	Asst. Prof./lecturer	Total
Human Anatomy	1	1	2	4
Physiology	1	1	1	3
Biochemistry	1	1	1	3
Microbiology	1	1	1	3
Pathology	1	1	1	3
Pharmacology	1	1	1	3
General medicine	1	1	1	3
General surgery	1	1	1	3
General Anesthesia	1	1		2
Total	9	9	9	27

Note: Faculty requirement show in the table is exclusively for dental colleges conducting B.D.S. program only

University/Colleges conducting both MBBS and BDS program should have one additional faculty fully dedicated to BDS program for basic science

Table 3.

Showing the faculty requirements in clinical sciences for an annual intake of 50 students annually.

Departments	Prof	Assoc. Prof.	Asst. Prof./Lecturer	Total
Prosthodontics	1	1	2	4
Conservative/ Endodontics	1	1	2	4
Oral surgery	1	1	2	4
Periodontics	1	1	1	3
Pedodontics	1	1	1	3
Orthodontics	1	1	1	3
Oral medicine		1	1	2
Community dentistry		1	1	2
Oral pathology		1	1	2
Forensic dentistry			1	1
Total	6	9	13	28

One faculty may be considered from community medicine in community dentistry

One faculty may be considered from forensic medicine in forensic dentistry

Table 4.

Showing the faculty requirements in clinical sciences for an annual intake of 75 students annually.

Departments	Prof	Assoc. Prof.	Asst. Prof./Lecturer	Total
Prosthodontics	1	2	2	5
Conservative/ Endodontics	1	2	2	5
Oral surgery	1	2	2	5
Periodontics	1	2	1	4
Pedodontics	1	2	1	4
Orthodontics	1	2	1	4
Oral medicine	1	1	1	3
Community dentistry	1	1	1	3
Oral pathology		2	1	3
Forensic dentistry			2	2
Total	8	16	24	38

Table 5.

Showing the minimum requirements of Dental surgeons in clinical departments, to work as Tutor/Demonstrator/Instructor to assist faculty members in practical/demonstrations and clinical services to the patients for smooth functioning of the departments. However, they will not be counted as the faculty.

Departments	50 intake	75 intake
Prosthodontics	3	4
Conservative/ Endodontics	3	5
Oral surgery	3	4
Periodontics	2	3
Pedodontics	2	3
Orthodontics	2	3
Oral medicine	2	3
Community dentistry	1	2
Total	18	27

10. The Dental College:

**MINIMUM BASIC QUALIFICATION/ TEACHING EXPERIENCE
REQUIRED FOR FACULTY**

Dental Staff

Principal

A dental college should be headed by Principal from dental fraternity with qualifications (B.D.S. + recognized post graduation) as prescribed for a Professor, but involved in academic field for at least 5 years.

Professors:	A BDS Degree recognized by NMC with Post-graduate qualification in the subject with teaching experience as Associate Professor as per university norms.
Associate Professor	A BDS Degree recognized by NMC with Post-graduate qualification in the subject and teaching experience as Assistant Professor as per university norms
Assistant Professor	A MDS or equivalent Degree recognized by NMC as per university norms
Lecture	A MDS or equivalent Degree recognized by NMC as per university norms
Tutors/Demonstrators	A BDS or equivalent Degree recognized by NMC

- The head of the dental college will be designated the Principal, from Dental fraternity as per the nomenclature adopted by the respective universities to which the college/campus is affiliated to, and must meet the appointment criteria outlined by the affiliating University.
- Ideally, all the activities related to the academic program should be located at the same site.
- While posting dental students on clinical placements, a well planned rotation schedule together with learning objectives must be clearly specified for the students to follow and acquire. The attendance record of individual students and the names of the topics taught during such placement together with the names and signature records of the respective faculty members must be produced upon demand by the proper authorities.

Basic Science Departments

The dental college should have following basic science departments of their own before starting the course.

I. Basic Medical Science

- a. Human Anatomy Department
- b. Physiology Department
- c. Pharmacology Department
- d. Biochemistry Department
- e. General Pathology Department
- f. Microbiology Department

II. Basic Dental Science Department

- a. Dental Materials
- b. Oral Biology
- c. Oral Pathology
- d. Forensic dentistry
- e. Preclinical Prosthodontic Lab
- f. Preclinical conservative Lab
- g. Preclinical Orthodontic Lab

Basic Dental Science Departments should be functional with adequate number of faculty, infrastructure, equipments and instruments as per NMC norms.

The following two subjects could be clubbed together under one head and clinical department.

- a. Dental Materials under Prosthodontics or Conservative Dentistry
- b. Oral Biology under Oral pathology, Periodontics, Orthodontics
- c. Oral Pathology under Oral Medicine, Oral surgery
- d. Forensic dentistry under Community Dentistry
- e. Oral Medicine under Oral Pathology, Oral Surgery
- f. Community Dentistry under Periodotics

Clinical Science Departments of the Dental Hospital

The Dental teaching hospital should run under a Hospital Director who should be from among the dental fraternity faculty (at least Associate Professor) of the dental college.

The dental hospital should have following departments.

- a. Oral Medicine and Radiology
- b. Oral and Maxillofacial Surgery
- c. Prosthodontics
- d. Periodontics
- e. Orthodontics
- f. Pedodontics
- g. Conservative Dentistry and Endodontics
- h. Community Dentistry

In keeping with the conceptual framework of the existing BDS curriculum, a fully functioning dental teaching hospital with at least 30 dental chairs, IOPA & OPG digital x-ray, minimum 25 phantoms heads for preclinical conservative labs. Preclinical Prosthodontics labs. & Oral biology labs. is mandatory at the time of starting the BDS program. Other instruments and equipments should be according to NMC norms (annex).

11. The teaching Medical and Dental Hospital

11.1 Medical Hospital

The dental college should have medical general hospital backup for the student's teaching learning activities and clinical exposure in General Medicine, General Surgery and General Anesthesiology.

The college must make to have 100 bedded medical general hospital of its own from day one.

Dental colleges which are running the programmed with affiliation to other medical institutions for conducting posting in general medicine and general surgery must their own 100 bedded medical general hospital with in three years.

Dental Hospital or Medical Hospital should have minimum of 10 beds for in patients for student's teaching learning in Oral and Maxillofacial surgery

The medical general hospital should have

12. Student: Hospital Bed Ratio = 1:6

13. Bed Occupancy = 70%

Dental Hospital

For the effective management of the academic activities and the clinical services, the management of the academic side and the service side may be looked after by separate administrations of the college and the teaching hospital i.e. in College by Principal and Dental Hospital by Hospital Director.

Minimum numbers of dental chairs required for Dental Hospital

The number of dental chairs in each clinical department will depend on the need of academic programs and hospital services and distribution is left to the discretion of

the head of the institute. However, for the purpose of ensuring adequate learning of the dental students, the departments should have minimum numbers of chairs as below.

All new colleges must have fully functional electronic chairs in each department. Old colleges still using manual chairs should replace with electronic chairs within 3 years.

	Departments	50 intake	75 intake
1	Oral Medicine	10	15
2	Oral Surgery	15	22
3	Prosthodontics	15	22
4	Periodontics	15	22
5	Orthodontics	10	15
6	Pedodontics	15	22
7	Conservative	15	22
8	Community Dentistry	05	10
		100	150

Minimum numbers of chairs/ departments that has to be established and faculties needed year wise in the dental hospital for 50 intake student

1. Day one;
 - a. Dental chairs - 30
 - b. Departments- Oral medicine, Oral surgery, Conservative, Prothodontic, Orthodontics
 - c. Faculties – minimum 5 (One faculty in each department)

2. By the end of first year;
 - a. Dental chairs – 50
 - b. Departments – to be added Pedodontics, Periodontics, Community Dentistry
 - c. Faculty – minimum 8(one faculty in each department,)

3. By the end of second year;
 - (a) Dental Chairs – 70
 - (b) Departments – All department should be functional
 - (c) Faculty- minimum 18, all faculties present as per NMC guidelines

4. By the end of third year
 - (a) Dental Chairs – 90
 - (b) Departments – All department should be functional
 - (c) Faculty – minimum 28, all faculties present as per NMC guidelines

5. By the end of forth year
 - (a) Dental Chairs – 100
 - (b) Departments – All department should be functional
 - (c) Faculty – All faculties present as per NMC guidelines

Minimum numbers of chairs/ departments that has to be established and faculties needed year wise in the dental hospital for 75 intake student

6. Day one;
 - (a) Dental chairs - 45

(b) Departments- Oral medicine, Oral surgery, Conservative, Prothodontic, Orthodontics, Pedodontics, Periodontics, Community dentistry

(c) Faculties – minimum 8 (One faculty in each department)

7. By the end of first year;

(a) Dental chairs – 75

(b) Departments – All departments should be functional

(c) Faculty – minimum 15, (2 faculties in each department, except community dentistry – 1 faculty). All faculties present as per NMC guidelines

8. By the end of second year;

(a) Dental Chairs – 105

(b) Departments – All department should be functional

(c) Faculty- minimum 25, (3 faculties in each department, except conservative - 4) All faculties present as per NMC guidelines

9. By the end of third year

(a) Dental Chairs – 135

(b) Departments – All department should be functional

(c) Faculty – minimum 38, All faculties present as per NMC guidelines

10. By the end of fourth year

(a) Dental Chairs – 150

(b) Departments – All department should be functional

(c) Faculty – All faculties present as per NMC guidelines

Minimum number of Out patients:

Since dentistry being more clinical oriented specialty, the Council desires that all the institutions make efforts to have adequate clinical material for satisfactory training of undergraduate students. There shall be at least 70 patients on an average each day in dental hospital with 50 admissions and 105 patients in dental hospital with 75 admissions.

12. Administrative Section

The administrative structure of the Dental College should comprise the following sections:

1. General and Personnel Administration
2. Fiscal and Internal Auditing
3. Planning and Evaluation
4. Academic and Examination
5. Procurement and Store
6. Learning Resources including Audio-visual and Medical Illustration
7. Students' Welfare including Hostel and Extra- curricular activities
8. Property, Security, Transport and Repair and Maintenance
9. Research and Publication

General and Personnel Administration section:

All matters related to general and personnel administration of the college should be looked after by this section.

Fiscal and Internal Audit Section:

The fiscal section should be responsible for the financial planning and management of the dental college. A strong financial commitment must be

ensured for the sustainability of the institution. An internal audit section must check and report on the budget, procurement, and store inventory according to the financial rules and regulations pertaining to the colleges.

Planning and Evaluation Section:

This section should conduct annual planning, budgeting and annual program evaluation.

Academic/Examination Section:

The academic and examination section should look after the academic programs and prepare the academic calendar. An annual/semester academic calendar of operation for all years / semesters must be prepared by the college/school/institute/campus specifying the details of teaching schedules of theory, practical/clinical teaching/learning activities.

This section should also ensure that the examinations are held effectively, efficiently and confidentially and the results of the examinations are published in a timely manner and feedback given to individual students.

Procurement and Store Section:

All matters related to the procurement and store is carried out by this section.

Learning Resources Section:

Library :

A Central library with good ventilation and lighting must provide sufficient space with comfortable sitting arrangements for allowing double

the number of annual admissions of students to sit and study at any given point in time.

For the core text books recommended by the curriculum there must be at least one book for every five students in the class. In addition, there must also be adequate numbers of reference books (1 book for every 25 students) which are to be placed in the reference section and/or departmental libraries.

In general a minimum of 500 volumes of books should be made available for an annual intake of 50 students. The major bulk of the core text books kept in the library must be of latest editions.

A good number of national/international dental/medical journals related to all subjects must be available.

Dental Colleges must provide free e-library/e-learning and internet services to the faculty and students. The Central library should remain open preferably twenty- four hours a day, to provide the opportunity to learn during any hour of the day or night.

The Central Library must have an adequate number of personnel with relevant skills and expertise to provide library services as mentioned above. The Library should be led and managed by a person with a minimum of Bachelor degree in library science and with adequate experience. It should also employ an I T specialist.

Audio-visual and Medical Illustration Section:

An Audio-visual and Medical Illustration Section must be established to provide sufficient numbers of overhead projectors, multimedia, laptop, television and artist facilities for helping teachers to teach effectively and students to learn better. The colleges are encouraged to continuously adapt

to new and innovative technologies for fostering effective teaching /learning activities.

Lecture Rooms:

A minimum of four lecture halls with comfortable sitting arrangements together with good ventilation, lighting, acoustic system and audio-visual aids should be made available for carrying out teaching/learning activities effectively.

Examinations Hall :

The academic/examination section must ensure that all examinations are held properly by maintaining the examination norms of the respective University. Sitting arrangements may be made in a separate examination hall or in classrooms with adequate invigilation.

Auditorium:

Dental college must have an auditorium of adequate capacity for holding scientific and other activities.

Students' Welfare including Hostel and Extra-curricular section:

The students' Welfare Section should look after the welfare of the students including providing hostels and extra curricular activities. Students' hostel for both female and male must provide adequate accommodation of adequate standard.

Hostels should be on the campus or in close vicinity for maximum use of library and participation in clinical learning activities, including off time hospital exposure for patient care and management.

Property, Security and Transport & Repair and Maintenance Section:

The safety of the college physical property and students, faculty and staff must be ensured by the property section by providing adequate security. The transport of staff and students is to be organized through the transport section. All matters related to the repair and maintenance of all infrastructure, electrical and sanitary and all others are looked after by the section.

Research and Publication:

A dental College must establish a Research and Publication unit/section/department and must show evidences of research and publication by faculty must be evident by the time the first batch of students pass out of the college/campus.

