

Ordinance Governing Certificate Courses in Dentistry

Syllabus / Curriculum 2017-18



Accredited 'A' Grade by NAAC
Placed in Category 'A' by MHRD (GoI)

KLE UNIVERSITY

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EMPOWERING PROFESSIONALS

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VISION

To Be An Outstanding KAHER Of Excellence Ever In Pursuit Of Newer Horizons To Build Self-Reliant Global Citizens Through Assured Quality Educational Programmes.

MISSION

- To promote sustainable development of Higher Education consistent with statutory and regulatory requirements.
- To plan and continuously provide necessary infrastructure, learning resources required for Quality education and innovations.
- To stimulate to extend the frontiers of knowledge, through Faculty Development and Continuing Education Programmes.
- To make research a significant activity involving Staff, Students and Society.
- To promote Industry/Organization, Interaction/Collaborations with Regional / National / International bodies.
- To establish healthy systems for communication among all stakeholders for vision oriented growth.
- To fulfill the National Obligation through Rural Health Missions.

OBJECTIVES

The objectives are to realize the following at KAHER and its Constituent Institutions :

- To implement effectively programmes through creativity and innovation in teaching, learning and evaluation.
- To make existing programmes more career oriented through effective system of review and redesign of curriculum.
- To impart spirit of inquiry and scientific temperament among students through research oriented activities.
- To enhance reading and learning capabilities among faculty and students and inculcate sense of Life Long Learning.
- To promulgate process for effective continuous, objective oriented student performance evaluation.
- To ordinate periodic performance evaluation of the faculty.
- To incorporate themes to build values, civic responsibilities and sense of National Integrity.
- To ensure that the academic, career and personal counseling are in-built into the system of curriculum delivery.
- To strengthen, develop and implement staff students welfare programmes.
- To adopt and implement principles of participation, transparency and accountability in governance of academic and administrative activities.
- To constantly display sensitivity and respond to changing educational, social and community demands.
- To promote Public – Private Partnership.

INSIGNIA



The Emblem of the KAHER is a Philosophical statement in Symbolic.

The Emblem...

A close look at the emblem unveils a pillar, a symbol of the 'KAHER of Excellence' built on strong Values & Principles.

The Palm & the Seven Stars....

The Palm is the palm of the teacher - the hand that acts, promises and guides the students to reach for the Seven Stars...

The Seven Stars signify the 'Saptarishi Dnyanamandal', the Great Bear-a constellation made of seven stars in the sky, each signifying a particular Knowledge Domain. Our culture says: The true objective of human birth is to Master these Knowledge Domains.

The Seven Stars also represent the Saptarishis, the founders of KLE Society whose selfless service and intense desire for 'Dnyana Dasoha' laid the foundation for creating the knowledge kingdom called KLE Society.

Hence another significance of the raised Palm is our tribute to these great Souls for making this KAHER a possibility.

Empowering Professionals...

'Empowering Professionals', the inscription at the base of the Emblem conveys that our Organization with its strength, maturity & wisdom will forever strive to empower the student community to become globally competent professionals. It has been a guiding force for many student generations in the past, and will continue to inspire many

**KLE VISHVANATH KATTI INSTITUTE OF DENTAL SCIENCES
NEHRU NAGAR, BELGAUM
2017-18
ORAL & MAXILLOFACIAL IMPLANTOLOGY**

PREAMBLE:

In the last two decades, Dental Implantology has become one of the most exciting and challenging field of dentistry. Dental implants provide a viable alternative to conventional dentures and crown and bridges. Patients who have lost teeth due to decay or periodontal disease or trauma can now have the option of having implants placed in their jaw bones to which the teeth can be permanently fixed.

The certificate program is meant to train graduates and post graduates in the subject of Oral Implantology. The course will elaborate on the scientific rationale, clinical trial results, clinical advantages, and other relevant information needed to apply this technology to a wide range of patient scenarios where endosseous osseointegrated implants and bone reconstruction are the treatment of choice. The ultimate goal of the program is to groom all participants into successful practitioners of implantology with a programme that is non-biased and scientific based.

GOALS:

The goal of this certificate program is to produce competent implantologists and /or teachers who shall be,

1. Able to diagnose the situation and plan the treatment to rehabilitate complete & partially edentulous patients.
2. Knowledgeable in various implant surgical techniques (1st stage & 2nd stage).
3. In position to repair & restore the lost structure to maintain harmony between both the hard & soft tissues of the oral cavity and facial structures.
4. Knowledgeable in the available materials.
5. Skillful to execute the treatment.
6. Able to assess the predictable long term results of an implant supported prosthesis.
7. Able to manage complications which may arise after prosthodontic rehabilitation.

OBJECTIVES:

The certificate course must enable the student:

1. To place implants to replace lost natural dentition and associated structures of maxilla & mandible.
2. To restore functional ability, mastication, speech & esthetics.
3. To maintain patients health.
4. To educate the patient the importance of periodic examination & motivate him regarding the maintenance of the prosthesis.
5. To acquire knowledge from historical perspective to advancement in the subject proper and related topic.
6. To develop effective human approach skills.
7. To enhance their diagnostic, surgical and restorative skills to disseminate the acquired scientific knowledge of implant dentistry as one of the most advanced specialties.

DURATION OF COURSE

The certificate course in implantology is a 4 month course with 3 modules and each module will be conducted on the second week of every alternate month.

The course will be of 150 hrs.

Hands on 20 hrs

Clinical - 80 hrs

Lectures - 50 hrs

ELIGIBILITY

1. BDS degree recognized by DCI
2. MDS degree recognized by DCI
3. Private practitioners with B. D.S. / M. D.S. degree.

INTAKE :

Maximum no. of participants for a course : 25

ATTENDANCE : A minimum of 75% attendance is a must for eligibility to appear for examination. Never the less participants should maintain 100% attendance.

MEDIUM OF INSTRUCTION : English Language

PARTICIPATION IN ACADEMIC ACTIVITIES :

1. Journal Review Meetings: 4 journal reviews by each candidate.
2. Seminars: 1 seminar by each candidate.
3. Participation: Minimum 1 conference / convention / symposium or inter departmental meetings to enhance knowledge of Prosthodontics, Oral and Maxillofacial Surgery, Periodontics and Radiology.
4. Clinical Discussion: All the clinical cases require clinical discussion which may be brief or long.
5. Other Activity: Basic computer training & photography.

COURSE CONTENT

MODULE - 1

1. Scope and evolution of implant dentistry & future directions in implant dentistry
2. Anatomy of Maxilla & Mandible (post extraction healing)
3. Physiology of bone.
4. Bone remodeling and types of bone.
5. Basic principles of diagnosis and treatment planning.
6. Sterilization and Asepsis
7. Osseointegration
 - Concept of Osseointegration
 - Biomechanics of Osseointegration
8. Implant prototypes and different systems
 - Design of each implant
 - Endosteal implants
 - Submucosal implants
 - Subperiosteal implants
 - Blade implants
 - Transosteal implants
9. Indications and contraindications for Implant therapy
10. Special emphasis on
 - Diabetes Mellitus
 - Smoking
 - Steroid therapy
 - Irradiation
 - Alcohol abuse
11. Examination of oral cavity
 - Assessment of existing dentition and periodontal status.
 - Oral hygiene status
 - Study Casts
12. Edentulous ridge
 - a. Type and classification
 - b. Soft tissue and bony evaluation
 - c. Intermaxillary space evaluation
 - d. Determination of prognosis.
13. Radiological assessment
 - a. OPG, IOPA
 - b. CT Scans
 - c. Templates
 - d. Ball bearing templates
 - e. Photographs
14. Designs for edentulous patient treatment
15. Designs for partially for edentulous patient treatment
16. Number of implants
 - Single tooth / multiple teeth implants
 - One stage / Two stage implant

17. Practical Exercise
 - Dummy Implant placement with audio visual interaction
18. Record distribution and interaction regarding treatment planning
19. Surgical stent preparation
20. Photography of dummy implant placement

MODULE - 2

SURGICAL ASPECTS OF PLACEMENT OF IMPLANTS

1. Basic principles of surgery
 - Surgical instruments
 - Preparation of patient
 - Anesthetic options – LA/GA/IV Sedation
 - Flap design
2. Preparation of the implant site
 - Implant placement
3. Suture materials and suturing techniques.
4. Post operative care
5. Postoperative complications and management.(Healing after implant placement)
6. Immediate loading implants.
7. Intra and extra oral applications
8. SURGICAL PLACEMENT OF 2 IMPLANTS EACH BY THE TRAINEES

Theory Prosthodontics (Didactic Teaching)

1. Impression materials
2. Impression techniques
3. Fabrication of study and working cast
4. Fabrication of template
5. Provisional restoration
6. Prosthodontic options in implantology
7. Study of abutments

Interactive sessions on : -

1. Use of Surveyor
2. Use of Milling machine
3. Precision attachments
4. Fabrication of prosthesis
5. Evaluation of Prosthesis
6. Occlusion in Implantology
7. Immediate implantation
8. Immediate delayed implantation
9. Esthetics in implantology

Log books to be updated and signatures from the supervisors

MODULE - 3

ADJUNCTIVE SURGICAL PROCEDURES

1. Soft tissue grafting
2. Guided Tissue Regeneration
3. Bone grafting
4. Sinus lift
5. Ridge augmentation
6. Distraction Osteogenesis.
7. Peri Implant Regenerative therapy
 - a. Decision making on ailing and failing implants
 - b. Future consideration
8. Medico-legal aspects and informed consent
9. Rehabilitation Of The Cases On Which Implants Were Placed In The 2nd Module

PRACTICALS

1. Identify and name various implant designs and components.
2. Training in dummy implant placement in typhodont and animal model.
3. Prosthetic hands-on on models
4. GBR & GTR hands-on on models and animal bone

CLINICALS TO BE DONE BY THE TRAINEES

1. Evaluation of the patient's medical status.
2. Fabrication of study casts splints and drilling stents.
3. Diagnostic Imaging and Radiographs.
4. Sterilisation of:
 - a. Instruments.
 - b. Surgical atmosphere.
 - c. Technique of washing and draping the patient
5. Assisting
 - a. Implant placement (1st stage surgery)
 - b. Abutment placement (2nd stage surgery)
 - c. Impression procedures.
6. Prosthodontic rehabilitation.
 - Independent placement of implant and completing restorative procedure. Each candidate should place a minimum of 02 implants preferably in of the following situations. (The implants + patient and Prosthodontic rehabilitation will be provided by the department of Implantology.* Conditions apply)
 - More than one crown per patient or similar will be charged at actual to the patient are to be borne by the candidate
 1. Edentulous mandible
 2. Edentulous maxilla
 3. Single tooth replacement
 4. Distal extension cases.

Photography of implant placement in patients and follow-up records to be maintained

SCHEME OF EXAMINATION

Theory: 100 Marks (3 Hours)

Type of Question paper

- i. Long Essays : 2 x 20 = 40 Marks
- ii. Short Answers : 06 x 10 = 60 Marks

Practical: 75 Marks

Viva Voce: 25 Marks

Eligibility : Minimum 80% attendance must to appear to exam.

Criteria to pass : Minimum 50% scoring separately in theory and practical

Class : 75% and above Distinction

65 – 74% First Class

55 - 64% Second Class

50 – 54% Pass Class

BOOKS RECOMMENDED :

SI No	Title	Authors	Edn	Year
1.	Osseointegration and occlusal Rehabilitation	S Hobo, E.Ichida	1 st	1989
2.	Guided bone regeneration in implant Dentistry	Buser, Dahlin, Schenk	1 st	1994
3.	Contemporary Implant Dentistry	Carl Misch	3 rd	2007
4.	Endosteal Dental implants	Ralph McKinney	1 st	1991
5.	Lab techniques for Branemark system	Ross Taylor	1 st	1990
6.	Principles of dental imaging	Langland, Langlais	2 nd	2002
7.	Implant therapy – Clinical approaches and Evidence of success	Myron Nevins, James T. Mellong	1 st	1998
8.	Dental Implants – The Art and Science	Charles A Babbush	1 st	2001
9.	Atlas of Implantology	Cranin, Klein , Simons	2 nd	1999
10.	Sinus Floor Elevation Procedures	Chen, Stephen; Buser, Daniel and Wismeijer, Daniel	Vol – 5	2011

LIST OF ESSENTIAL JOURNALS :

1. International journal of oral and Maxillo facial implants.
2. Journal of oral Implantology.
3. Journal of dental research.
4. Clinical oral implant search.
5. Dental technician.
6. Quintessence international
7. Other journals related to the specialties of Prosthodontics, Oral Surgery, Periodontics and Radiology.
8. Journal of International Congress of Oral Implantologists (ICOI)