

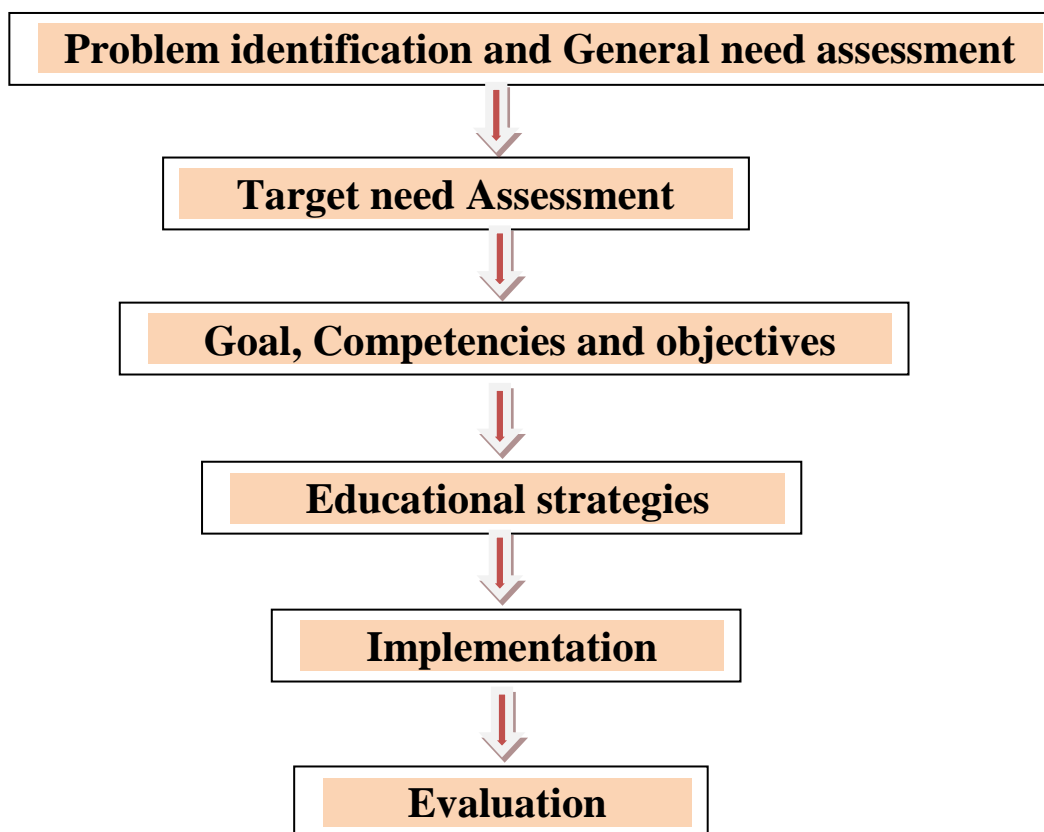
## **Kern's Six Step implemented by the university**

Institution has clearly stated goals and objectives for its educational program. The curriculum is prepared based on the guidelines of regulatory bodies and also considering the current and relevant issues with a view to meet the global trends in higher education and cater to the needs of the society. Calendar of Events is provided at the commencement of academic session and strict adherence to the schedules is ensured. There are a total of 156 programmes, 272 interdisciplinary courses offered by University. To meet its goals and objectives, the University reviews and restructures/ revises the syllabus and curriculum through well framed policies, obtains feedback from stakeholders, forwards it to the Board of Studies (BoS) for its consideration and then places for approval of the Academic Council.

The University has adopted Kern's six stage curricular development approaches.

- Problem identification and General need assessment
- Target need Assessment
- Goal, Competencies and objectives
- Educational strategies
- Implementation
- Evaluation

**FLOWCHART OF KERN's APPROACH  
FOR  
SYLLABUS FRAMING & REVISION**



**1. PROBLEM IDENTIFICATION AND GENERAL NEED ASSESSMENT:**

Based on guidelines of the respective Central Councils and keeping in view the local, regional, national and international needs, the faculty of the concerned department prepares the conceptual frame work for existing and proposed new programmes.

**2. TARGET NEED ASSESSMENT:** The conceptual frame-work is placed before the respective Departmental Committee for its approval. After detailed discussions, the conceptual design along with the draft curriculum is sent to external experts for their review and suggestions. The need for the program or revision is assessed based on the need. The suggestions received from the external experts are placed before the Departmental Committee and based on the suggestions, the Departmental Committee prepares the detailed unit-wise curriculum for each subject with type of training required to be covered, standard of passing, blue-print of question paper, etc

**3. GOAL, COMPETENCIES AND OBJECTIVES:** At this stage, the Departmental Committee verifies the correctness of the curriculum; weightages assigned to each unit, standard of passing and blue-print of the question paper and confirms that regulatory body guidelines are met with. The goals, competencies, objectives along with course and program outcomes are well defined.

**4. EDUCATIONAL STRATEGIES:** Various Educational strategies are framed like preparing of possible solutions and choosing the most appropriate solutions for problems, tasks, working process, educational process and other, according to time, place, circumstances and conditions for certain program or executer project. The curriculum so prepared and validated by the Departmental Committee is placed before the respective Board of Studies for further discussion and approval.

- 5. IMPLEMENTATION:** The curriculum placed before the BOS is discussed in detail and the suggestions / recommendations, if any, are incorporated and are placed before the Academic Council for its approval. The curriculum so approved by the Academic Council is implemented by the faculty for the benefit of students.
- 6. EVALUATION:** The feedback obtained through structured questionnaire from students, examiners, academicians and alumni members is placed before the Departmental committee. The recommendations of the Departmental Committee are reviewed for its consideration by the Board of studies. Structured feedbacks are obtained from all the stakeholders like academic peers, alumni, students, external examiners and subject experts. The analyses of feedbacks and specific recommendations by individual department regarding relevance, correctness and redesigning are forwarded to concerned Board of Studies and then to Academic Council for its consideration.

**Training of students is by following instruction methods in all constituent units**

1. Lectures
  2. Demonstrations
  3. training in the laboratories and skill labs
  4. group discussions
  5. online classes(when need arises)
  6. community postings
- The curriculum design has definite allotment of scores for formative and summative assessment of students that enables evaluation of professional skills and competencies.
  - The undergraduate curriculum in various disciplines includes value added courses, skill based training, enrichment programmes and also involvement of students in various curricular and co-curricular activities. Students are also trained on legal issues and its forensic applications.



# KLE Academy of Higher Education & Research

(Formerly known as KLE University, Belagavi)

[Declared as Deemed-to-be-University u/s 3 of the UGC Act, 1956 vide Government of India Notification No.F.9-19/2000-U.3(A)]

‘ Re-Accredited ‘A’ Grade by NAAC (2<sup>nd</sup> Cycle) & Placed in Category “A” by MHRD (GoI)

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## FACULTY DENTISTRY, KAHER, BELAGAVI

### EXPLANATORY NOTE

#### Item 1

**Topic to be added:** - Pre clinical exercises for apical barrier placement technique in simulated immature non vital permanent teeth

#### **Need / purpose of the proposal change / Item:-**

- Need of the hour
- New technology
- Patient base need
- Development of learning skills
- Integration of knowledge and practice
- Allowing students to develop cognitive and psychomotor skills

**Explanation Assessment / Evaluation :-** Formative Assessment



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## Kern's Six Steps of Curriculum Development for apical barrier placement in immature nonvisual teeth for PG

Step 1	Problem identification and General need assessment	<ol style="list-style-type: none"> <li>1. Health care problem</li> <li>2. Current approach</li> <li>3. Ideal approach</li> </ol>	<ol style="list-style-type: none"> <li>1. The purpose of apical barrier placement therapy used in non-vital immature teeth is to induce the formation of hard tissue barrier at the root apex for the completion of apical development. Hence all the postgraduate students should enhance their clinical skills in dealing with immature teeth and their management.</li> <li>2. Through Seminar &amp; Journal Clubs</li> <li>3. Preclinical Demonstration and hand on models/patients.</li> </ol>
Step 2	Target need Assessment	<ul style="list-style-type: none"> <li>Choose targeted learners</li> <li>Find out information about the targeted learners</li> <li>Determine characteristics of the learning environment</li> </ul>	<ul style="list-style-type: none"> <li>Post graduate students</li> <li>With demonstration it is easier to retain the knowledge and they can perform better.</li> <li>For refining and tuning the skills of the students and improvising patient care, this method was introduced.</li> </ul>
Step 3	Goal ,Competencies and objectives	<ol style="list-style-type: none"> <li>1. Define goal</li> <li>2. Identify and define competencies</li> <li>3. Objectives -specific and measurable</li> </ol>	<ol style="list-style-type: none"> <li>1. Students should be able to clinically achieve apical barrier placement with the use of biomaterials and proper clinical technique.</li> <li>2. Clinical application of placement techniques and biomaterials.</li> <li>3. Students should be able to place an apical barrier in models/patients .</li> </ol>
Step 4	Educational strategies <ul style="list-style-type: none"> <li>Content</li> <li>T-L methods</li> </ul>	<ul style="list-style-type: none"> <li>Cognitive Objectives :Lecture, SDL</li> <li>Psychomotor Objectives</li> <li>Skill or Competency Objectives-simulations</li> <li>Affective Objectives-Reflection, role models</li> </ul>	<ul style="list-style-type: none"> <li>Students should improve their knowledge and clinical skills in the management of non-vital immature permanent teeth</li> </ul>
Step 5	Implementation	Planning	Demonstration and hands on
Step 6	Evaluation	Program and assessment - formative and summative methods	Short essays in exams Clinical case presentation and discussion Performing on models/patients



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Meeting Date:

## Summary sheet

<b>Board of studies</b>	Dental clinical subjects
<b>Course:</b>	PG
<b>Changes in the curriculum for the year:</b>	2023
<b>Name of the Chairperson:</b>	Dr. Vinayak Kumbhojkar
<b>In - house Members:</b>	Dr. Hemalatha Hiremath / Dr. Mateen

Sl. No	Previous Method	Changed Reform	Basis for the change	Remarks
1	Seminar  & Journal  Club	Demonstration and Pre-clinical Hands on	Clinical skill and precision with minimal intervention	Student is going to be abreast with the techniques to enhance psycho motor and cognitive skills. The society in large scale will be benefited with this technology.

## CRITERIA 1: OBE

- The curriculum has been developed & revised by 9 stages/step process in conjunction with Kern's 6 step approach.
- The **Curriculum** of all the programs are developed and revised based on
  - ✓ 9 step process
  - ✓ Kern's 6 step approach
- **Graduate Attributes** are defined for all the programs across all the constituent units.
- **Program Educational objectives** are the goals of each program as per the graduate Attributes.
- **Program outcomes** have been stated by every institute in terms of Regulatory Body / Council. (Number of PO varies according to how the colleges have stated).
- **Course outcomes** are the objectives of every subject taught in a program. They are spelt based on knowledge, skills & attitudes; and are designed based on different levels of thinking as per Bloom's taxonomy.

### The process of designing and implementation of OBE (Outcome Based Education)

OBE (Outcome Based Education) implementing process (Year-wise break-up) (To be explained during the visit, if asked)	
<b>2018</b>	<ul style="list-style-type: none"> <li>• Framing of Course Outcomes &amp; Program Outcomes statements</li> <li>• Mapping COs with POs</li> </ul>
<b>2019</b>	<ul style="list-style-type: none"> <li>• Standardization of OBE Calculations for constituent colleges</li> </ul>
<b>2020</b>	<ul style="list-style-type: none"> <li>• Applied to previous batches (performance status check)</li> <li>• The two have been mapped and the values have been shown in graph for interpretation.               <ul style="list-style-type: none"> <li>○ Serves a Guide for Target setting for next batch</li> </ul> </li> </ul>
<b>2021</b>	<ul style="list-style-type: none"> <li>• Colleges decide based on attainment achievement whether to increase or decrease the target (marks or level/ percentage of students achieving the target) or plan a remedial measure in case low or no attainment.</li> <li>• Syllabus blueprinting has been done by few colleges where they have broken down the syllabus into Must to know, Good to know &amp; Nice to know category.</li> <li>• Internal Assessment Question Papers have been aligned with the CO's &amp; PO's - new QP format adopted.</li> </ul>
<b>2022</b>	<ul style="list-style-type: none"> <li>• Apart from all the measures that were adopted in 2021, all the UG programs continued to implement with OBE with MBBS 3<sup>rd</sup> year had to adopt CBME as per their regulatory council, Nursing also had council which implemented CBNE.</li> </ul>
<b>2023</b>	<ul style="list-style-type: none"> <li>• The first batch of Homoeopathy who completed the course was subjected to OBE calculations &amp; attainments have been mapped for BHMS. The targets have been set higher (marks/ percentage) at few constituent units and they have achieved the targets successfully.</li> </ul>
<b>2024</b>	<ul style="list-style-type: none"> <li>• KAHAR JGMMC and Physiotherapy colleges Hubli also framed Graduate attributes/ Course outcome/ program outcomes statements.</li> <li>• Framing of Program Specific Outcomes for all the postgraduate programs.</li> </ul>



**Target Setting:** Target is set on two parameters

- **Target Marks:** indicate the marks which the student is expected to secure to consider all the outcomes are attained.
  - % of marks to be secured in that course (eg: 60% of total marks for exam)
  - Different % of marks for Internal assessment and Final examination based on difficulty levels
- **Target Level:** indicates the % of students in a batch expected to achieve the set target marks.
  - Level 1: >60% but <70% students should achieve the set target marks
  - Level 2: >70% but <80% students should achieve the set target marks
  - Level 3: >80% students should achieve the set target marks

**Attainment:** is assessed on a SCALE of in 3-2-1 format and is interpreted as

3: High attainment

1: Low attainment

2: Moderate attainment

0: Not attained

### **Interpretation of Attainment levels:**

**High attainment: 3:** >80% of students have scored greater than set target marks.

**Moderate attainment: 2:** >70% but <80% of students have scored greater than set target marks.

**Low attainment: 1:** >60% but <80% of students have scored greater than set target marks.

**Not attained: 0:** <60% of students have scored greater than set target marks.

### **Continual Quality Improvement (CQI)**

It closes the loop of an assessment process. Attainment levels provide roadmap of the course to teachers/administrators of the ways ahead. CQI would suggest suitable actions to be taken during the next implementation of the course.

Outcome	Action to be taken by faculty
High attainment of all CO-PO	Set new higher targets or attainment levels for next Academic Year (A.Y.).
Moderate attainment of all CO-PO	Record observations, Continue action plan of last A.Y. with plan for improvements.
Low attainment of all CO-PO	Record observations, assess the target set, revise/improve action plan of last A.Y. to achieve the attainment with plan for improvements.
CO-PO not attained, poor performance	Record observations, Critical assessment of target with Program Assessment Committee (PAC), Revise action plan of last A.Y. at faculty/department level.