BAPATLA ENGINEERING COLLEGE, BAPATLA.

POLICY DOCUMENT

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Summary of changes if revised						
Date of Revision Summary of changes						

TEACHING AND LEARNING POLICY

Introduction

Bapatla Engineering College (BEC) conceived teaching learning process is the most important activity of the college in guiding the students to achieve knowledge and skills, both technical and communication, as well as to inculcate life-long learning skills. Its policy is to make the teaching and learning enriched in that direction.

BEC is also strongly committed to recruit eminent faculty and to enhance the capabilities faculty members who adhere to integrity and quality of teaching and learning in a respectful environment that encourages free inquiry and free expression.

The teacher's primary role is to facilitate student learning using various teaching methods and strategies. It appreciates the role of the teacher as to simplify the learning effort of the student by providing guidance and appropriate explanations to concepts. BEC understands the need for T-L policy, and for uniformity in teaching – learning process in the College across all programs.

Principles of T-L Policy

To support teaching and learning, the College has developed principles to be followed in teaching and learning:

- All students should be supported to engage meaningfully in their learning so they can capture their entire potential.
- Theory and practice are equally important aspects and whenever possible should be intertwined; in a professional program, students need to develop knowledge and understanding, as well as an application of their knowledge.
- Learning involves more than memorization; it involves understanding and also problem solving, analysis and application.
- Diversified teaching strategies are important to enhance differentiated learning; not all students learn in the same manner and hence a variety of methods need to be used.

Policy Statement

BEC purpose is to provide high quality education, develop creative thinking of its students, and to inculcate life-long learning. BEC maintains integrity and quality in the delivery of teaching, research supervision, assessment of student learning outcomes, and in the award of qualifications. The teaching – learning methods and strategies have to be continuously reviewed by the faculty based on experiences in delivering courses, feedback from students, peer review, and feedback from appropriate national and international accrediting bodies. Quality assurance in teaching – learning process is utmost important and every teacher must follow the guidelines developed from time to time.

Organization and Process

The following is the institutional arrangement to implement the teaching-learning policy.



Role Descriptions:

Academic Coordinator:

Head of the Department is the ex-officio academic coordinator. She/he monitors the implementation of all academic policies in close association with the class coordinators in addition to the Department administration. Head of the Department is responsible to monitor the preparation of course plan and for internal/external verification before the class room delivery begins. IQAC monitors the implementation of the Teaching – Learning policy and for compliance of the process and procedures.

Class Coordinator:

Class coordinators are nominated by the Department Committee. He/she monitors the work of section coordinators and assists the section coordinators in performing their role in better manner. Conducts the meeting of all section coordinators and discusses on the issues and communicates the issues to the Head of the Department.

Section Coordinator:

Section coordinators are nominated by the Department Committee. She/he monitors the attendance and marks of students in the section (in the nominated section); Prepares a list of slow learners and prepares a list of students whose attendance is below 75%, and sends the information to the parents by SMS; Conducts meeting of the course coordinators/teachers once every month in order to identify the issues in teaching - learning process and the behavior of students; and Brings the issues to the notice of the Class Coordinator.

Course Coordinator/Teacher:

A *course coordinator* is nominated by the Head of the Department in a multi section course among the teachers of the course for all sections. If it is a single section, there is no need for course coordinator and the teacher takes care of the course requirements.

Course teacher is responsible to prepare the course plan as per the College norms and communicates to students after approval. She/he is responsible to the course delivery and to conduct continuous assessment of students as per the BEC guidelines. Teacher(s) to every

course are assigned by the Department Committee in a meeting after obtaining the interests and specializations of the faculty members.

Procedure:

Adherence to Academic Calendar:

- Department calendar of events is derived in synchronization with the College calendar of events that include the academic schedule, co-curricular and extra-curricular events.
- Course objectives are prepared/reviewed by the Course teacher or course teachers together for multi-section courses taking the Program objectives into consideration.
- Syllabus of the course is also prepared/reviewed based on the feedback from students and reviewers, as well as to delete the identified redundancies, if any.
- Course Outcomes are defined, in achievable and measurable terms, by the teacher(s) and also identify the teaching-learning methods and the assessment methods to be used.
- Course teacher(s) prepare(s) the Lesson plan for the whole semester, week-wise in the format given in Template T-L-1 in the appendix to this Policy.
- Head of the Department nominates the internal or peer reviewer of the Lesson Plan for each course.
- The reviewer reviews the Lesson Plan and prepares a Report (Template T-L-2 in appendix) and submits it to the Head of the Department.
- The teacher(s) responsible for the course revises the Lesson Plan as per the suggestions of the reviewer and submits to HOD.
- HOD verifies whether the revision is made or not and approves the Plan for circulation to students.
- According to the lesson plan, work done has been inculcated in the academic dairy (Template T-L-3 given in the appendix) to ensure coverage of syllabus as well as the student behavioral issues duly monitored by the Coordinators and the Head of the Department.
- Class Coordinator organizes the meeting of the all the teachers of the class once every month to discuss the coverage of syllabus as per Lesson Plan and other issues if any and submits the report to the Head for further action.

• Head of the Department presents the Department report along with the issues in the next HODs meeting.

Maintenance of Course files:

At the end of the Semester, the Course teachers (every teacher separately in a multi-section course) prepares the course file and submits to the Head of the Department within a week after the final examination results are declared. Course file is a record all aspects regarding a course delivered during a semester by the teacher.

Contents of the Course File:

- Title page with Course code and Title, Class, Semester and Year, and the name of the teacher.
- Syllabus copy and the Lesson Plan
- Time-Table
- Roll list of students with final attendance
- Final marks sheet showing the marks obtained in all assessments.
- Question papers of all Assessments
- Scheme of valuation for each assessment
- Sample answer scripts of all assessments
- Student support materials, presentations, Handouts, etc.

IQAC internal audit team verifies the Course files for completeness to ensure the quality.

Teaching Methods

There are methods that can be used for teaching – learning. Some of suggestive methods are given here. This is not an exhaustive list. The teacher can use any other innovative method in the teaching-learning process.



The basic philosophy of learning is as shown in the following diagram

As shown above, listening is the basic style of learning that enabling the listener to understand concepts only where as seeing and doing enable them to learn higher skills. There are several methods to support each style.

- Lecture method and Interactive learning: Lectures are the primary mode of instruction especially in the introductory courses where students need to become familiar with and understand certain concepts and a variety of theories. The faculty may use chalk and board and/or audio-visual aids teaching or simply deliver a lecture verbally. Students are also encouraged to interact during the lecture hour by getting the doubts clarified on the spot. Faculty may use models, charts for interactive teaching. Efficiency of lecture method totally depends on quantity of information, style of presenting information, clarity of information.
- *Lecture cum Discussion:* It involves students in discussion by stimulating the students to raise questions during or after the lecture or to induce a topic for discussion in groups or the class as a whole. Lecture can be interspersed with discussion or breaks as the content and time limit. Teacher should be prepared to allow questions during lecture, as appropriate. Teacher should also anticipate difficult questions and prepare appropriate responses in advance.
- *Lecture-demonstration*: Lectures are delivered by demonstrating with a model, either static or dynamic, or a virtual model by video. This enhances the student understanding of a part or a product and this also can be used in management models demonstrating with a chart or a diagram.

- *Problem solving*: Problem-solving is a class room activity which needs the students to take some of the responsibility for their own learning by doing. This can be effectively used to solve problems, resolve conflicts, and discuss alternatives. Students get an opportunity to try the tools and techniques they have learned and knowledge gained.
- *Class exercises:* Class exercises are used to support the student learning in a more focused manner. Different forms of class exercises are utilized including exercises that help students recall information, but also self-test their understanding of such information by problem solving issues that the exercises provide them with.
- *Tutorials:* Tutorials are offered when students need further explanations and discussions in smaller groups. Tutorials offer a flexible form of student-centered small group teaching.
- *Case Studies:* Case studies are utilized both in lectures, class exercises and group work assignments. The case studies approach assists students to develop critical and creative thinking skills, as well as to develop and refine their problem solving skills. The discussion of case studies also enhances the communication and inter-personal skills of students.
- **Games:** Games, either simulation or physical games, provide opportunities for students to learn to work in teams or team building. It also gives an experience of virtual systems, replica of real systems, and decision making in different scenarios. They provide a stimulating experience.
- *Independent/Group project work:* The students are given assignments to work independently on a chosen topic, collect data/information, analyze data, with the aim of providing analysis and suggest alternate solutions.
- *Role Play:* It introduces problem situation dramatically and provides opportunity for students to assume roles of others and thus appreciate another point of view. By making role changing, students can gain the understanding of the responsibilities and decisionmaking situations of different executives. Students also learn the importance of team work and understanding of others view point. This is more useful in social sciences and humanities.
- *Literature Review:* A literature review is studying the current literature on a chosen topic, particularly, the journal articles, to be aware of the new concepts, new developments and new research orientation related to the subject. Teacher can use it effectively to make the students aware of new developments in the subject by guiding them individually or as a group. A literature review can be just a simple summary of the

sources, but it usually has an organizational pattern and combines both summary and synthesis.

- *Seminar:* Seminar is used as an effective technique to realize the higher objectives of cognitive & affective domains. A specific subject or topic is delivered as an article or report in the seminar. The article and its concepts submitted in the seminar are analyzed and discussed through group discussion. Seminar method can be individual or a group activity. It leads to a guided interaction among the students on a theme.
- Field visit:

A field visit or trip is a visit to a place outside the regular classroom and is used to enhance the student learning by seeing. It provides students with first-hand experience related to the topic or concept being discussed in the class room, and provides unique opportunities for learning that are not available within the four walls of a classroom. Field trips should be designed around specific educational objectives such that students can easily make connections between the focus of the field trip and the concepts they are learning in the class room. Field visits motivate students through increased interest and curiosity and also increases student-student and student-teacher social interaction.

- *Guest lectures:* Guest lectures bring outside knowledge and expertise into the class, and exposes students to new perspectives and approaches used in real world. They have to be carefully chosen and to be planned well in the sequence of a course. Students get the opportunity to learn something new. Guest lectures create sustaining community relations by making professionals to connect with students.
- **Project-based learning**: During the period of study in the 7th to 8th semester, many real-time projects are given to the students and they are guided by both faculty and Industry/research personnel.

Methodologies to support slow learners and encourage quick learners: Guidelines to identify students with low performance:

The Counselors regularly conduct meetings regarding progress of their mentees and are responsible to identify students who score less than 50% marks in their continuous assessment. Under the HOD direction, the student Counselors evaluate the progress of those students who scored below 40% marks in three or more subjects and below 75% attendance are considered as academically low performers and same is also intimated to their parents.

MENTORING SYSTEM (to be rewritten)

Identification Criteria	Actions taken					
Students scoring less than 40% of marks ir the continuous Assessment.	 Student counselor follows their progress regularly advising students about attending classes, making up classes missed, and getting additional help. Intimating parents to counsel their wards. Conduction of remedial classes. 					
Lateral entry students who missed some topics	Conduction of bridge classes.					
Students who fail in semester exams	Conduct summer classes to prepare such students for supplementary examinations					

Encouraging quick learners:

- Course teacher identifies student strengths as early as possible and discover ways to develop them rather than focusing myopically on weaknesses.
- Students' strengths are identified by giving questions/problems in the class and assessing their solutions or by giving individual assignments of critical thinking and analysis.
- Identified Students are encouraged and guided based on their area of strength by providing challenging tasks.
 - Open-ended problems are given so that students will be exposed to advanced problemsolving methodologies.
 - Students are encouraged to participate in the International and national level events.

E. Conduct of Experiments:

- Curriculum stipulates laboratory courses mostly in 1st to 7th semester. The syllabus is prepared as per the norms of curriculum development and the experiments are clearly listed.
- All the listed experiments are to be learned by students with expected proficiency and to achieve the learning outcomes.
- Laboratory equipment, both hardware and software, are updated from time to time and are maintained regularly.
- Detailed instruction manuals are either adopted if existing or prepared by the Course teacher and gets approval as per procedure of curriculum development.

- Every Laboratory Course is assigned with two teachers a laboratory assistant or instructor.
- The student maintains an observation book which is duly checked and verified by the course teacher after every experiment.
- At the end of the semester, students submit a record book containing all the experiments carried out which are to be maintained systematically.
- Teachers use this record to compile the Grade.
- Continuous assessment system is also implemented for assessment of laboratory work as for theory courses. The detailed procedure is given in the Assessment Policy

Student feedback and Peer Review

- At the end of the semester, all the students are required to fill a feedback-form apprising the faculty using a scale of 10 (high) through 1 (low) and the Course (Template T-L-4 attached)
- Peer review is carried out by two senior faculty members nominated by HOD by visiting the class or the HOD of the Department after one month of the commencement of the semester by being present in the class with prior information to the teacher.
- The Peer Team also interacts with students and then give constructive comments to improve the quality of teaching and the teaching-learning process.
- Counseling by the respective HOD for those faculty members who have secured low scores and negative comments, if any, in the feedback. This motivates them to improve their skills and abilities.
- If required training / orientation Programs are conducted by professional experts to master the skills of the faculty members in the nuances of teaching, thus improving the efficiency of teaching-learning process.

HOD conduct regular staff meetings once every month.

Quality Assurance

BEC assures high quality in teaching and learning by designing and implementing process for preparation and delivery of the course. A detailed procedure is laid out to prepare course objectives, intended learning outcomes, topics to be discussed, teaching methods to be used and also assessment methods as part of course Lesson Plan and syllabus. BEC Assessment and Examination Policy is a supportive policy to the Teaching and Learning Policy. The Lesson Plans are made available to students at the beginning of the semester. The Lesson Plans are also peer reviewed before delivery of the course as described in the internal verification process. They are also subjected to external verification by an external reviewer appointed by the Academic council for every Program.

Continuous Improvement

BEC is committed to continuous improvement of its programs, courses and other services. Instructors review the Lesson Plans every semester based on the feedback received from students, and internal and external verification. They also consider the feedback from other stakeholders such as members of Board of studies and governing council and from employers. Therefore, the teaching- learning process is continuously reviewed for improvement with the changing needs and changing technology and paradigms.

Assessment System:

The detailed assessment system along with procedures are given in the Assessment and Examination Policy.

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1.	Department	
2.	Program	
3.	Semester/Year	
4.	Course title /code	
5.	Prerequisite – Code and Title	
6.	Number of hours tuition	
7.	Date of Preparation	
8.	Syllabus	
9.	Course Objectives	
1		

T-L 1

10. Learning Outcomes
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11. Teaching – Learning Methods
12. Assessment Methods

Week	No. of Periods	Learning Outcomes	Unit/module/ Topic(s)	Teaching Methods	Assessment Methods

14. Resources	
TextBook	
Reference Books	
Journals/Journal Articles	
Other Resources such as Guest Lecture, Field Study, etc.	

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Internal Verification of Course Plan

Department		
Degree	Course Code	
Year/Semester	Course Title	
No. of Sections	Teacher/	
	Coordinator	

Item	Yes	No	Partial	Suggestions for Modification
Is the Course Plan complete??				
Is the Course Plan clearly				
written?				
Is it free of typographical				
errors?				
Are the Learning Outcomes				
relevant?				
Are the Learning Outcomes				
representative of all types of				
skills?				
Are the teaching methods				
appropriate?				
Are the teaching methods used				
sufficient for this course?				
Are the assessment methods				
appropriate?				
Are the marks given for each				
assessment method				
appropriate?				
Are the total marks given for \vec{a}				
Continuous assessment as per				
the College policy?				
Are the dates for each				
assessment clearly stated?				
Are the assessment methods				
appropriately spaced across the				
semester?				

Name of the Ver	rifier			
Signature		I	Date:	
HOD Signature		I	Date	

T-L 2