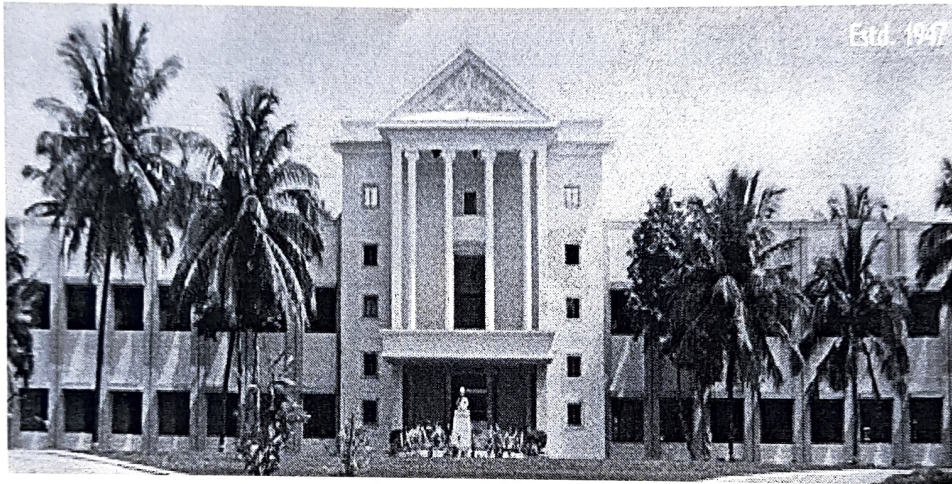




## BACHELOR OF ENGINEERING

## BIOTECHNOLOGY



Minutes of 5<sup>th</sup> BOS Meeting

Academic Year 2019-20

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KLE Technological University  
HUBBALLI-580 031



**DEPARTMENT OF BIOTECHNOLOGY**

**5th Board of Studies (BOS) Meeting of  
Biotechnology Engineering (UG) Programme  
13<sup>th</sup> April 2019**

**MEETING AGENDA**

1. Approval of Curriculum structure from III to VIII Semester of 2019-23 Batch
2. Approval of detailed content of III and IV semester courses of 2018-22 Batch
3. Approval of detailed content of V and VI semester courses of 2017-21 Batch
4. Approval of detailed content of VII and VIII semester courses of 2016-20 Batch
5. Any other subject related to syllabus.

Meeting Date: 13 - 04 - 2019

Time: 10.00 AM

Venue: H.O.D Chamber,  
Biotechnology Department

Chairman

Dr. Uday M. Muddapur

HOD  
HEAD

DEPT. OF BIOTECHNOLOGY

KLE TECHNOLOGICAL  
UNIVERSITY, HUBBALLI-31.

Copy to: All the members of BOS

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**DEPARTMENT OF BIOTECHNOLOGY**

**Proceedings of the 5th Board of Studies  
(B. E. Biotechnology Programme) Meeting held on 13-04-2019 at  
the Department of Biotechnology.**

**Board of Studies met on 13-04-2019 to discuss the following  
agenda**

1. Approval of Curriculum structure from III to VIII Semester of 2019-23  
Batch
2. Approval of detailed content of III and IV semester courses of 2018-22  
Batch
3. Approval of detailed content of V and VI semester courses of 2017-21  
Batch
4. Approval of detailed content of VII and VIII semester courses of 2016-20  
Batch
5. Any other subject related to syllabus.

**After the deliberate discussions the following decisions were made**

1. Approved the suggested Curriculum structure from III to VIII semester of  
2019 - 23 Batch with no changes (*Annexure-I*)
2. Approved the detailed content of III and IV semester courses of 2018-22  
Batch with some suggestions (*Annexure-II*)
3. Approved the detailed content of V and VI semester courses of 2017-21  
Batch with some suggestions (*Annexure-III*)
4. Approved the detailed content of VII and VIII semester courses of 2016-  
20 Batch with some suggestions (*Annexure-IV*)

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**DEPARTMENT OF BIOTECHNOLOGY**

Members present at the 5<sup>th</sup> B.O.S. Meeting dated 13<sup>th</sup> April 2019

Sl. No.	Name	Signature
1	<b>Dr. Uday M. Muddapur,</b> Professor and Head. Department of Biotechnology, K.L.E Technological University, Vidyanagar, Hubli – 580 031.	 <b>CHAIRMAN</b>
2	<b>Dr. Vijaysai P.</b> Consulting Engineer SUEZ Water Technologies and Solutions Whitefield, Bangalore-560066	 <b>MEMBER</b>
3	<b>Dr. K.S. Jagadeesh</b> Professor (Agril. Microbiology) Dept of Forest Biology College of Forestry Sirsi-581 401	<i>Absent</i> <b>MEMBER</b>
4	<b>Dr. Rajyashree K. R.</b> Chief Scientific officer Shilpa Medicare Pvt Ltd Incubation Centre K.L.E Technological University, Vidyanagar, Hubli – 580 031.	 <b>MEMBER</b>
5	<b>Dr. Sudeep Kumar</b> Head-R&D, QC, QA and Manufacturing of recombinant therapeutic proteins, Unichem Laboratories Ltd, Goa-403511	<i>Absent</i> <b>MEMBER</b>
6	<b>Mr. Anand Hiremath</b> Scientist –I/ Deputy Manager Aurozymes, Aurobindo Pharma, Hyderabad-500 084	 <b>MEMBER</b> 13/04/2019

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7	<b>Mr. Sai Srikar Kandukuri</b> Deputy Manager, Biocon limited, Bangalore- 560 100	 MEMBER
8	<b>Mr. Dinesh C. Goudar</b> Manager, Manufacturing Science, Mylan Pharmaceuticals private limited Bangalore-560 087	 MEMBER
9	<b>Dr. Basavaraj S. Hungund</b> Professor, Department of Biotechnology, K.L.E. Technological University, Vidyanagar, Hubli – 580 031.	 MEMBER
10	<b>Dr. L. R. Patil</b> Associate Professor Department of Biotechnology, K.L.E. Technological University, Vidyanagar, Hubli – 580 031.	 MEMBER
11	<b>Dr. S. V. Desai</b> Associate Professor, Department of Biotechnology, K.L.E. Technological University, Vidyanagar, Hubli – 580 031.	 MEMBER
12	<b>Prof. Anil R. Shet</b> Assistant Professor, Department of Biotechnology, K.L.E. Technological University, Vidyanagar, Hubli – 580 031.	 MEMBER
13	<b>Miss Haripriya</b> Student Department of Biotechnology K.L.E. Technological University, Vidyanagar, Hubli-580031	 MEMBER

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## Department of Biotechnology

### Recommendations of 5th Board of studies of KLE Technological University (Biotechnology) meeting held on 13/04/2019

#### Annexure-I

##### **Agenda-1: Approval of Curriculum structure from III to VIII Semester of 2019-23 Batch.**

- No changes were expressed by the BOS members

#### Annexure-II

##### **Agenda-2: Approval of detailed content of III and IV semester courses of 2018-22 Batch**

###### **1. Microbiology:**

The BOS members suggested to include "Microbes and human society, Microbial applications in agriculture, veterinary, healthcare, industry and environment" in microbiology course.

###### **2. Microbiology Laboratory:**

One new open ended experiment has been proposed in Microbiology laboratory. It was accepted by the BOS members with no changes.

###### **3. Cell and Molecular Biology Laboratory:**

One exercise experiment has been converted to open ended experiment. It was accepted by the BOS members with no changes.

#### Annexure-III

##### **Agenda-3: Approval of detailed content of V and VI semester courses of 2017-21 Batch.**

###### **1. Genetic Engineering and applications:**

The BOS members suggested to include "Ethical, Social, Economical and Political issues related to Gene modification and Genetic Engineering" in genetic engineering and applications course.

###### **2. Genetic Engineering & Immunotechnology Laboratory:**

Two exercise experiments are converted to structured enquiry experiments. It was accepted by the BOS members with no changes.

###### **3. Research Methodology:**

As per the suggestions of BOS members, the course content should include "author h-index and i10-index, awareness on predatory journals and its identification, grants and funding agencies for biotechnology research, Design of matrix and analysis, Contour plots and response surface plots, Introduction to Artificial Intelligence and its application in biotechnology". The members also suggested to swap chapter 5 and 6 for proper flow of the course.

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**4. Bioinformatics:** With inputs from BOS members the course content of Bioinformatics course has been modified to include recent developments in Computational Biology. Subsequently credit weight age has been changed from 3 credits to 4 credits.

**5. Bioprocess Control and automation:**

The BOS members suggested including one chapter on multiple input and multiple output systems (MIMO systems) in Bioprocess control and automation course.

**6. As per the inputs from the stake-holders (Alumni Feedback), new elective Bioprocess Modelling and Simulation was introduced at VI Semester.**

**Annexure-IV**

**Agenda-4: Approval of detailed content of VII and VIII semester courses of 2016-20 Batch.**  
The following were the changes suggested by the BOS members

**1. Plant and Animal Biotechnology:**

The BOS members suggested to include "Ethical and Social issues related to development and release of transgenic plants with case studies – Bt Cotton" in plant and animal Biotechnology elective course.

**8<sup>th</sup> Semester Courses**

**1. Industrial Waste Management:** This new open elective has been proposed in 8<sup>th</sup> Semester to address civil and mechanical engineering students. This course was accepted by the BOS members with no changes.

Date: 13-04-2019

Chairman BOS

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