

**Parvatibai Chowgule College of Arts & Science  
(Autonomous)  
Margao - Goa**

**MINUTES OF THE MEETING OF THE BOARD OF STUDIES IN  
BIOTECHNOLOGY HELD ON 22<sup>nd</sup> OCTOBER 2016 FROM 10:00 A.M TO 04:30 P.M.**

Vide Chowgule College notice (F.133(C)/941 dated 06<sup>th</sup> October 2016) a meeting of this BoS was convened on 22<sup>nd</sup> October 2016 at 10.00 a.m. in the G-202, Parvatibai Chowgule College of Arts & Science, Margao - Goa. Since the number of members present represented the Quorum, the BoS began its proceedings.

Minutes are presented in the format.

Members present:

- |                            |                          |
|----------------------------|--------------------------|
| 1. Dr. R. Kanchana         | -Chairman                |
| 2. Mr. Madappa             | -Vice-Chancellor Nominee |
| 3. Ms. Lee-Anne D'Costa    | -Member Secretary        |
| 4. Ms. Madhavi M. Motankar | -Member                  |
| 5. Ms. Liesl De Silva      | -Member                  |
| 6. Ms. Maria Vera Da Costa | -Member                  |
| 7. Ms. Carol Fernandes     | -Secretary               |

Members Absent with Intimation

1. Dr. Smitha Hegde (Academic Council Nominee)
2. Ms. Apurva Fernandes (Student Alumnus)

Members Absent due to unavoidable circumstances

1. Dr. Jayanth Sridhar (Academic Council Nominee)
2. Dr. Tamal Raha (Industry Representative)

Proceedings

The Chairperson welcomed the members of the Board of Studies (BoS). The Chairperson introduced and explained the agenda for the meeting and the Board transacted the following business:

Agenda Items:

1. To review of the list of core and elective courses for undergraduate program in Biotechnology.
2. To approve the syllabi of Semester V and Semester VI for the academic year 2017 - 2018.
3. Any Other Business (A.O.B.)

#### PART A: RESOLUTIONS

1. The BoS passed the following resolutions with respect to the syllabi of Core and Elective courses. The list of Core and Elective papers are presented in **Annexure I**.
2. A discussion was held on the syllabi of the core and elective courses for undergraduate program in Biotechnology for the Semester V and VI. The BoS then approved the syllabi of the courses for Semester V and VI. The redrafted and approved syllabi is presented in **Annexure II** and the details of the discussion are as follows:
  - i. Minor changes were made in the Core and Elective papers for semester V and VI. The content of some of the papers was altered and lecture hours were adjusted accordingly. For most papers shuffling of the topics was done to maintain the flow in teaching the particular subject.
  - ii. BoS suggested minor changes for practical sessions in certain papers and the same was implemented as shown in **Annexure II**.
  - iii. BoS approved to conduct any ten practical sessions out of the listed practical sessions.
  - iv. Paper BIO-II.C-4 Cell and Molecular Biology was reviewed for its content as requested by the teacher in-charge. It was reported in the last academic audit session by the teacher in-charge that the content was too heavy in terms of number of hours for completing the syllabus as well as for students to grasp the content. The BoS therefore suggested to divide the existing paper into two separate papers namely Cell Biology and Molecular Biology. The said changes can only be implemented at the next revision of the BoS as per autonomy guidelines of the College.

v. The BoS had a discussion on the compulsory T.Y.B.Sc. group project carrying 4 credits.

PART B: Resolutions/Recommendations of BoS that require consideration / approval of Academic Council:

1. The BoS approved the syllabi of Semester V and Semester VI as presented in **Annexure II**.
2. The BoS suggested to separate Paper BIO-II.C-4 Cell and Molecular Biology into two separate papers.
3. The BoS approved to conduct 10 practical sessions.
4. The BoS approved the implementation of compulsory T.Y.B.Sc. group project carrying 4 credits.

The foregoing minutes of the meeting are circulated by the Chairman on 4<sup>th</sup> November, 2016.

The Chairman thanked the members of Board of Studies in Biotechnology for their valuable contribution and active participation.

The meeting ended at 04.30 pm on 22<sup>nd</sup> October 2016.

The following members of the Board of Studies in Biotechnology were present at the meeting:

- |                            |                          |
|----------------------------|--------------------------|
| 1. Dr. R. Kanchana         | -Chairman                |
| 2. Mr. Madappa             | -Vice-Chancellor Nominee |
| 3. Ms. Lee-Anne D'Costa    | -Member Secretary        |
| 4. Ms. Madhavi M. Motankar | -Member                  |
| 5. Ms. Liesl De Silva      | -Member                  |
| 6. Ms. Maria Vera Da Costa | -Member                  |
| 7. Ms. Carol Fernandes     | -Secretary               |

Dr. Smitha Hegde and Ms. Apurva Fernandes conveyed their inability to attend the meeting while Dr. Jayanth Sridhar and Dr. Tamal Raha could not attend the meeting due to unavoidable emergencies.

Date: 4<sup>th</sup> November 2016



Ms. Lee-Anne D'Costa  
Member Secretary  
BoS (Biotechnology)



Dr. R. Kanchana  
Chairman  
BoS (Biotechnology)

PART C: The remarks of the Dean of the Faculty:-

- a. The minutes are in order
- b. The minutes may be placed before the Academic Council with remark, if any.
- c. Important points of the minutes which need clear policy decision of the Academic Council to be recorded.

Date: 5/11/2016

Signature of the Dean: Ananya Das  
(Faculty of Science) (Dr. Ananya Das)

## Annexure I

### Core Papers for Major in Biotechnology (CC)

Sr. No.	Semester	Title of the Paper	Code
1	I	Basic Microbiology	BIO-I.C-1
2	I	Fundamentals of Biochemistry	BIO-I.C-2
3	II	Fundamental Genetics	BIO-II.C-3
4	II	Cell and Molecular Biology	BIO-II.C-4
5	III	Immunology	BIO-III.C-5
6	IV	Concepts in Genetic Engineering	BIO-IV.C-6
7	V	Industrial Biotechnology - Basic	BIO-V.C-7
8	VI	Bioethics and Biosafety	BIO-VI.C-8

### Elective Papers for Major in Biotechnology (CE)

Sr. No.	Semester	Title of the Paper	Code
1	III	Basics of Plant and Animal Sciences	BIO-III.E-1
2	III	Molecular Genetics	BIO-III.E-2
3	III	Biostatistics	BIO-III.E-3
4	III	Evolution and Anthropology	BIO-III.E-4
5	IV	Plant and Animal Physiology	BIO-IV.E-5
6	IV	Applied Biophysics	BIO-IV.E-6
7	IV	Ecology and Biodiversity	BIO-IV.E-7
8	IV	Advanced Biochemistry	BIO-IV.E-8

<b>Sr. No.</b>	<b>Semester</b>	<b>Title of the Paper</b>	<b>Code</b>
9	V	Molecular Medicine	BIO-V.E-9
10	V	Environmental Biotechnology	BIO-V.E-10
11	V	Introduction to Drug Development	BIO-V.E-11
12	V	Bioinformatics	BIO-V.E-12
13	VI	Advanced Microbiology	BIO-VI.E-13
14	VI	Industrial Biotechnology - Advanced	BIO-VI.E-14
15	VI	Plant Biotechnology	BIO-VI.E-15
16	VI	Animal Cell Culture	BIO-VI.E-16

## **Annexure II**

Parvatibai Chowgule College of Arts and Science (Autonomous)

Margao, Goa

Syllabus for

Semester V and Semester VI

for the undergraduate course

in

Biotechnology

(2017-2018)

## Core and Elective Courses for students of Single Major in Biotechnology

### Semester V:

1. Industrial Biotechnology - Basic
2. Molecular Medicine
3. Environmental Biotechnology
4. Introduction to Drug Development
5. Bioinformatics

### Semester VI:

1. Bioethics and Biosafety
2. Advanced Microbiology
3. Industrial Biotechnology - Advanced
4. Plant Biotechnology
5. Animal Cell Culture