

**MINUTES OF THE FIRST MEETING OF THE BOARD OF STUDIES IN
BIOTECHNOLOGY OF PARVATIBAI CHOWGULE COLLEGE OF ARTS AND
SCIENCE (AUTONOMOUS)**

Date: 20th December

Time: 10:30 am

Venue: Photogrammetry and Research Laboratory, Parvatibai Chowgule College of Arts and Science (Autonomous), Margao, Goa

The meeting started on time and 7 members were present. The Chairman of the Board of Studies, Ms. Liesl De Silva welcomed the members and thanked them for attending the first meeting. She also introduced the Department of Biotechnology to the other members and provided a brief introduction of each member.

The members asked a few questions regarding certain details of the course and of its scope in order to get a brief idea of the working of the department and of its progress.

Constitution of the Board of Studies in Biotechnology

The Board of Studies in Biotechnology has been constituted as follows:

- Head of the Department as Chairman of the Board of Studies
- The entire faculty of each specialisation as Members
- Two experts in the subject from outside the college nominated by the Academic Council
- One expert nominated by the Vice-Chancellor from a panel of six recommended by the college Principal
- One representative from industry/corporate sector/allied area relating to placement
- One postgraduate meritorious alumnus nominated by the Principal
- Member Secretary (A faculty member nominated by the Chairman)

The Chairman, Ms. Liesl De Silva, informed the members that the matters approved by the Board of Studies would be placed before the Academic Council and further, before the Governing Body for their individual approval.

After the introductory remarks, Ms. Liesl De Silva provided a brief account of the course structure under Autonomy as approved by the Academic Council. She then presented the Agenda, and the business, as per the Agenda, was transacted.

Agenda

1. To approve the list of core and elective courses for undergraduate program in Biotechnology
2. To approve the syllabi of Semester I and Semester II for the academic year 2015 - 2016.
3. Recommend panel of examiners to the Academic Council.
4. Any Other Business (A.O.B.)

Proceedings:

1. **Agenda Item 1: APPROVAL OF THE LIST OF CORE AND ELECTIVE COURSES FOR UNDERGRADUATE PROGRAMME IN BIOTECHNOLOGY**

1.1 Discussion on the list of proposed core and elective courses

Discussion Summary : Members felt that good effort was put into constructing the course titles, however, there were a few important changes to be made which are detailed in the discussion below.

Details of the Discussion:

In the course of the discussion, the following suggestions were made:

1. Dr. Tamal Raha stated that it is important to emphasize courses in Microbiology, Biochemistry, Industrial Biotechnology and Animal Cell Culture as part of the core component in order to equip the students with the necessary skills for further employment.
2. Dr. Tamal Raha, Dr. Jayanth Sridhar and Mr. Madappa agreed that Biochemistry would be a better core subject in the first year as opposed to introducing it in the second year.
3. Dr. Jayanth Sridhar also proposed that the paper on "Cell Biology" could be clubbed with "Molecular Biology" and "Fundamentals of Genetics" could be a separate paper. This was accepted by the other members.
4. Dr. Jayanth Sridhar suggested that "Concepts in Genetic Engineering" could be offered as an elective, however, Mr. Madappa stated that it is required as a core paper. As a result, "Plant Tissue Culture" and "Animal Cell Culture" were combined as one paper and "Concepts in Genetic Engineering" was offered as a separate core paper.
5. Dr. Jayanth Sridhar also suggested an elective paper on "Downstream Processing", however, Dr. Tamal Raha raised a point, saying that it might be too advanced for undergraduate students. A discussion between all the members also ensued regarding the equipment required for practical sessions for the same. Mr. Madappa suggested that this paper could be given as internship to the students under the guidance of industrial experts.
6. A question was raised by Dr. Jayanth Sridhar regarding the minimum number of students for conducting classes in an elective paper to which Ms. Apurva Fernandes said that at Goa University, a minimum of 5 students is required. Ms. Liesl De Silva stated that as per the current system, even 1 student choosing an elective would be sufficient for classes to be conducted.
7. Dr. Jayanth Sridhar also suggested that a paper of Basic Mathematics could be offered instead of only Statistics.

8. Dr. Tamal Raha stated that when constructing a syllabus for "Industrial Biotechnology", it is important to bear in mind the following components to be included : (i) Microbial fermentation (ii) Biofuels (iii) Mammalian cell culture and (iv) Separation technology
9. Mr. Madappa stated that while constructing the course titles, it is important to create courses in such a way that there is a relation between the core paper and the elective papers in a particular semester.
10. Dr. Jayanth Sridhar suggested that "Industrial Biotechnology" be divided into Part 1 and Part 2, wherein Part 1 would be offered as a core compulsory (basic) and Part 2 would be an elective (advanced) course.
11. Mr. Madappa suggested that it would be valuable to have an elective paper in "Introduction to Research" which would include components like - the basics of research and steps involved in accessing research papers.
He also said that the more challenging papers should be included in Semesters V and VI.
12. Dr. Jayath Sridhar and Dr. Tamal Raha suggested a paper on "Introduction to Drug Development."

1.2 Resolution on the list of proposed core and elective courses:

The list of proposed core and elective course was accepted by all members present, along with suggestions and necessary changes which have been incorporated and included in Annexure I.

2. Agenda Item 2: APPROVAL OF THE SYLLABI OF SEMESTER I AND SEMESTER II FOR THE ACADEMIC YEAR 2015-16

2.1 Discussion of the proposed syllabi of Semester I and Semester II for the Academic Year 2015 - 2016

Discussion Summary: The members felt that a lot of work had been put into constructing the syllabi, however it was quite exhaustive and the collective opinion of all the members was that it should be re-organised into simpler components.

Details of the Discussion:

1. Mr. Madappa suggested a lot of changes to the syllabus of paper BIO-I.C-1 (Basic Microbiology), both in the theory component as well as the practical. He also suggested that it would make a difference if students were assessed in each practical session as opposed to a single examination as the end of the semester.
2. Since there was a change in the order of core papers, Biochemistry was suggested as paper BIO-I.C-2 and allotted a place in the first semester. The syllabus was constructed during the meeting by all members present.
3. Further, the members decided that the faculty of the Department of Biotechnology would work on reorganising the content of the papers in "Fundamentals of Genetics" (BIO-II.C-3) and "Cell and Molecular Biology" (BIO-II.C-4) which would be further communicated to the external members through Email.

2.2 Resolution of the proposed syllabi of Semester I and Semester II for the Academic Year 2015 - 2016:

The proposed syllabi of Semester I and Semester II for the Academic Year 2015 - 2016 was accepted by all members present, along with suggestions and necessary changes. The same have been incorporated and detailed in Annexure II.

3. Agenda Item 3: RECOMMENDATION OF PANEL OF EXAMINERS TO THE ACADEMIC COUNCIL

3.1 Discussion of the Panel of Examiners to the Academic Council

The list of the panel of examiners was constituted based on their expertise and experience of the subject as well as bearing in mind their availability for paper setting and evaluation.

3.2 Resolution of the Panel of Examiners to the Academic Council:

The Board of Studies in Biotechnology approved the list of Panel of Examiners to be recommended to the Academic Council. The list of names of the external examiners is presented in Annexure III.

4. Agenda Item 4: ANY OTHER BUSINESS

There were no other issues to be discussed.

The meeting ended at 3pm, following a lunch break. The Chairman thanked all the Board of Studies members for being present at the meeting and for their valuable input.

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


1. Ms. Liesl De Silva	-Department of Biotechnology	-Chairman
1. Dr. Jayanth Sridhar	-Academic Council Nominee	-Member
2. Mr. Madappa	-Vice-Chancellor Nominee	-Member
3. Dr. Tamal Raha	-Industrial Representative	-Member
4. Ms. Apurva Fernandes	-Alumnus	-Member
5. Ms. Madhavi M. Motankar	-Department of Biotechnology	-Member
6. Ms. Lee-Anne D'Costa	-Department of Biotechnology	-Member Secretary

Dr. Smitha Hegde, Academic Council Nominee, conveyed her inability to attend the meeting. She however, provided feedback through email on the proposed syllabi for the academic year 2015 - 2016, which was taken into consideration during the meeting.

Date: 8th January 2015



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



Ms. Liesl De Silva
Chairman
BOS (Biotechnology)