

# AMITY UNIVERSITY HARYANA

Amity Institute of Biotechnology  
Minutes of Meeting of BOS (Board of Studies)  
July 22<sup>nd</sup>, 2014

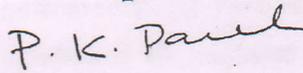
The meeting of BOS (Board of Studies) was held on July 22<sup>nd</sup>, 2014 (10:30AM) and was attended by the Faculty of Biotechnology, Amity University Haryana under the Chairmanship of the Director, AIB.

Following BOS experts, special invitees & faculty member were present in the meeting on July 22<sup>nd</sup>, 2014.

1. Prof. (Dr.) S.M. Paul Khurana, Chairperson BOS.



2. Prof.(Dr.) PK Paul (External Member)



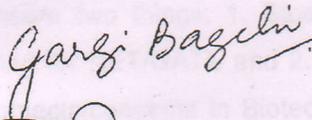
3. Prof.(Dr.) T. R. Sharma (External Member)



4. Prof.(Dr.) SK Ray, Member



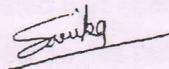
5. Dr Gargi Bagchi, Member



6. Dr. Dinesh Yadav, Member



7. Ms Sarika Chaturvedi, Member



## MINUTES OF BOARD OF STUDIES MEETING OF AIB HELD ON – 22.07.2014

The Meeting of Board of Studies of AIB was held on 22nd July, 2014 at 11.00 a.m. in the VIP Lounge, Amity University Gurgaon. The following members were present in the meeting :

1. Prof. S.M. Paul Khurana (Chairman)
2. Prof. P.K. Paul (Member)
3. Prof. T. R. Sharma (Member)
4. Prof. SK Ray (Member)
5. Dr. Gargi Bagchi (Member)
6. Dr. Dinesh Yadav (Member)
7. Ms. Sarika Chaturvedi (Member)

Prof. SM Paul Khurana Director, AIB welcomed all the members. This was followed by a step by step discussion about the syllabus of all programs and courses. The layout and content of each subject in every semester was thoroughly discussed and changes suggested. All the decisions were unanimous.

### 1. B.Sc. (H) Biotechnology

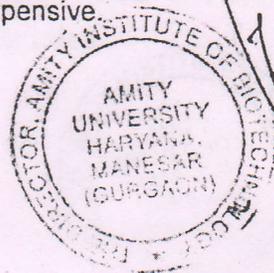
All members of the Board of Studies unanimously agreed that introductory physics, chemistry and mathematics should be included in 1<sup>st</sup> and 2<sup>nd</sup> semester of B.Sc. This will ensure two things: 1. Students will be familiar with these subjects while appearing for NET/GATE and 2. They will be able to understand some of the basic subjects/concepts in Biotechnology better with their ground knowledge in these core subjects. All these subjects would be taught at the introductory (10 + 2) level.

(ii) Professor Paul suggested that Theory and Practical should come under same course code for any subject as this reduces the total number of courses indicated on paper for a student. This change is being considered.

(iii) For foreign language credit would be 1 instead of 2 as that will allow students to concentrate on their core subjects.

(iv) The syllabus and list of the remaining subjects were found to be appropriate.

(v) The concentration elective for 'study abroad' is not being opted for as for most of the students this option is very expensive.



(vi) The syllabus of Biochemistry (Course Code: BTH2301) can be reduced by removing the contents which are common with the subject Molecular Biology.

2. For B. tech (Biotechnology) courses the following changes have been suggested:

For B. Tech I st and IInd semester most of the courses are common with ASET and are taken up by the ASET faculty. No changes were required for these courses according to the feedback from ASET faculty.

### **B. Tech IIIrd Semester:**

(i) Biochemistry syllabus was pointed out to be too long and everyone agreed that it should be divided into 2 parts. The second part can be merged with Chemical Biology and moved to the next semester.

New names were suggested for the first paper such as "Introductory Biochemistry in IIIrd sem and Biochemistry-II for 4<sup>th</sup> sem.

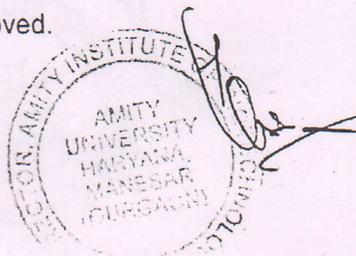
(ii) Some parts of the Biostatistics syllabus that are too complex for the Biotechnology students would be revised. These include Axiomatic definition of Probability, Addition theorem, Multiplication theorem-, Bayes theorem in the second module. Method of least squares can be removed from Regression in module V. In module VI, emphasis would be given to F-test, T-test and only introduction to rest of the topics would be provided.

(iii) Similarly, for Database Management studies syllabus would be revised to include basics of SQL and PERL. It has been suggested that modules 3, 4 and 5 be merged. Module 6 would be enlarged with an introduction to Data Mining and Basics of Data Mining.

(iv) The course plan should be revised so that Bioprocess Technology comes before Fermentation and Industrial Biotechnology. The concentration electives, Fermentation biotechnology and Industrial biotechnology should be in B.tech VIth semester.

(v) Accounting and Finance should be removed from the list of subjects in work shop.

(vi) Foreign language course should be of 1 credit only and study abroad program in concentration elective should be removed.



(vii) The syllabus of the following courses was found to be appropriate and hence not changed:

Cell Biology and Genetics, Drug Design and Development, RDT

#### **B. Tech IVth Semester:**

(i) The microbiology course needs to be revised and reduced to only IV modules. Fermentation, Plant Microbe Interactions can be removed from module IV. Module VI which deals with host-parasite interaction can be removed as it is too complex. Module VII relating to antibiotics should be completely removed as it is a part of Fermentation Technology.

(ii) The Database structure and Algorithms paper should be renamed as Database structure and Applications.

(iii) The Methods and instrumentation in Biotechnology course can be removed as most of it is included in other subjects.

(iv) The syllabus for following subjects was found to be appropriate and not changed: Enzymology and enzyme technology, Chemical Engineering Principles and other concentration electives.

(v) It was discussed that Agriculture Biotechnology may also include introduction to animal sciences.

(vi) The credits of the courses would have to be readjusted if Biochemistry II is introduced in this semester and Chemical Biology is removed from the previous semester. For example instead of two credits allotted for Chemical Biology in IIIrd semester (bringing down total credits to 27), these two credits may be added to IVth semester. If the Microbiology course syllabus is modified to exclude a few topics then the credits for Microbiology course can be reduced from 3 to 2 and then total credits in IVth semester would be  $27 + 2 = 29$ .

**B. tech Vth, VIth, VIIth, VIIIth Semester:** Syllabus of all other subjects would remain unchanged.

#### **3. M.Tech Biotechnology**

The programme structure and course contents of M.Tech Biotech programme was discussed thoroughly.



- (i) It was noted that there is currently no core course in immunology in M. Tech and it is only being offered as an elective. Everyone agreed that Immunology must be included as a core subject.
- (ii) 1<sup>st</sup> sem: The Biochemistry and Metabolic Regulation course needs to be shortened or divided into two parts. In Microbial technology too some parts need to be removed as subjects like Agricultural Biotechnology, Food Microbiology are being offered in 3<sup>rd</sup> semester in Agri Food biotechnology.
- (iii) Foreign language may be for 1 credit only so that students get more time for core subjects.  
No changes were suggested for Genetics and Molecular Biology, Instrumentation and Research Methodology, Biostats and elective I and II.
- (iv) M.Tech IInd, IIIrd and IVth semester: No changes were suggested.

#### 4. M.Sc. Biotechnology

The course curriculum was discussed at length and everyone agreed that

1<sup>st</sup> semester: Biochemistry syllabus needs to be divided or shortened.

Microbiology syllabus is too long and needs to be shortened as suggested.

Foundation course 1 in Mathematics is too long and complex, hence needs to be revised.

In 1<sup>st</sup> sem Plant and Animal Physiology, Genetics and Foundation course II in Physics would remain unchanged.

IInd, IIrd and IVth semester: No changes were suggested.

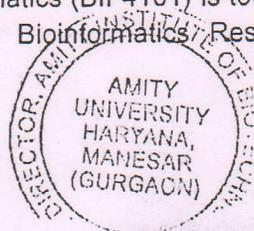
**5. B. Tech and M. Tech Dual degree:** Same changes to be introduced as mentioned for B. Tech Biotechnology course as much of the syllabus from 1st to VIIIth semester is the same.

#### **6. BSc + MSc Biotechnoloy Dual Degree**

Same changes to be introduced as mentioned for B.Sc. Biotechnology and M. Sc. Biotechnology courses as much of the syllabus is the same.

#### **7. M. Sc. Bioinformatics**

The syllabus of Introduction to Bioinformatics (BIF4101) is too exhaustive; Module I and Module II can be merged as Major Bioinformatics. Resources include Biological



databases. As the databases like NCBI, UNiprot, PDB can be taught under the division of biological databases along with introduction to different file formats and other tools which have been associated with the major databases.

Modules III and IV can be merged so as to remove some of the repetitive contents for Recombinant DNA Technology in second semester.

#### 8. B. Tech Bioinformatics

The entire module III of Comparative Genomics in Genomics and Proteomics (BIF2402) can be removed as topics covered under this module are studied in detail as individual subjects in other semesters.

The meeting ended with Prof. SM Paul Khurana thanking all the members for their valuable suggestions.

Compiled by Dr Gargi Bagchi and

Ms Sarika Chatuvedi *for & on behalf of*

**Prof. SM Paul Khurana**  
**Director**  
**Amity Institute of Biotechnology**

