

MINUTES OF THE BOARD OF STUDIES MEETING ⁵¹ IN BIOTECHNOLOGY

The 11th meeting of the Board of Studies in Biotechnology in the Autonomous Scheme under "CBCS" was held on Saturday 01.03.2014 at 10:30 am, in the Department of Biotechnology.

The Chairman of the Board presided over the meeting and the following members were present:

DR. R. SUBASHKUMAR	CHAIRMAN	<i>[Signature]</i> 01/03/2014
DR. R. SATISHKUMAR	UNIV. MEMBER	<i>[Signature]</i>
DR. THA. THAYUMANAVAN	SUBJECT EXPERT (GRD course)	<i>[Signature]</i>
DR. R. THIRUGNANASAMPANDAN	MEMBER	<i>[Signature]</i> 1/3/14
DR. B. LAKSHMAN KUMAR	"	<i>[Signature]</i> 1.2.14
MR. N. SRINATH	"	<i>[Signature]</i> 01.3.14
DR. V. BHUVANESHWARI	"	<i>[Signature]</i> 1/3/14
DR. M. KALAISELVI	"	<i>[Signature]</i> 1/3/14
MR. P. KARTHIKEYAN	"	<i>[Signature]</i> 6/11/14
MRS. R. AMSAVENI	"	<i>[Signature]</i> 1/3/14
MS. M. YAMUNA	ALUMINI MEMBER	<i>[Signature]</i> 1/3/14
MS. G. BHUVANESWARI	STUDENT INVITEE	<i>[Signature]</i> 1/3/14
MR. R. VIGNESH	"	<i>[Signature]</i> 1/3/14

The Chairman welcomed the members of the Board of Studies in Biotechnology and the members were introduced.

The Chairman then briefly explained the happenings of the 10th meeting of Academic Council.

AGENDA 1

The details of previous 10th Academic council meet were discussed and changes regarding the practical hours made for UG. (Genetics, microbiology - from 2 hrs to 3 hrs)

AGENDA 2

Changes and improvements in the UG and PG syllabi, curriculum, and scheme of examination.

UG BIOTECHNOLOGY

- 1) Core paper 1 :- Cell Biology - Suggestions were given for more addition and as it is arranged in order no further changes were made.
- 2) Core paper 2: Biochemistry :- Addition of "Lab safety video or ppt" were suggested by Uni. member. Requirement of minor correction and addition of terms is required.
- 3) Genetics :- Core paper 3 :- Suggested for addition of "sub-topics" should be included as much as possible and as per students feedback, if any topic is general, it had to be elaborated.
- 4) Core paper 4 :- Microbiology :- Suggested to specify "Modal classification" and revising some simple foreign author books.
- 5) Practical :-
 - 1) Biochemistry and Cell Biology :-

In Biochemistry :- Revising of experiments were found to required and to have subtopic in sugars. - lactose, Glucose, starch.

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- 6.) Practical: (2) Genetics and Microbiology - To add "Quantitation of DNA and RNA by specialized techniques".
- 7.) Bioinstrumentation and Biophysics:- Core paper 5:- Suggested to include "Mass spectrophometry, GM counter and Scintillation counter" in the current syllabi. It had been suggested for the removal of topics "Blotting and Autoradiography" due to the presence of repetition.
- 8.) Core paper 6: Molecular Biology :- As per the revision done in 10th Academic meeting, no further changes were made.
- 9.) Core paper 7: Immunology :- It had been suggested for minor changes and reordering of topics. The books by foreign authors should be included which has to be simple and easy for the student to understand.
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- 10.) Core paper 8: rDNA Technology:- The members and subject experts had suggested for addition of topic "Detection of probes", "Northern Blotting and Southern Blotting" in current syllabi along with self study portion "Problems encountered in gene cloning". Due to the presence of topics in other syllabus, topics like "DNA chips, microarray" were suggested for removal from current syllabi.
- 11.) Core paper 9: Animal Biotechnology:- Suggestions were made for rearrangement of topics and to add topic in organ culture "Grid method". Also suggested for adding more books from foreign and Indian Authors.
- 12.) Core paper 10: Bioprocess technology :- In III unit, it had been suggested to add "Sources of Industrially important microbes" and for rearrangement of order.

13.) Core paper II: Plant Biotechnology :- Suggestions were made for addition of topics, "Stable and transient methods", "Modal system :- Arabidopsis", "Tobacco - Agrobacterium Transformation". It had been reviewed and topic like "Meristem culture" was suggested for removal. The books had to be rearranged and also rearrangement is required for the current syllabus.

14.) Practical 3 :-

a) Bioinstrumentation, Molecular Biology, Immunology and rDNA techniques.

- In Immunology :- Rearrangement of order was suggested.

- rDNA techniques :- Addition of topic "Gene amplification by PCR" was suggested.

15.) Practical 4 :-

b) Bioprocess technology, Plant and Animal tissue Culture

- Bioprocess technology :- Rearrangement of order was suggested.

- Plant Biotechnology :- Suggested for addition of topic "Transformation :- Agrobacterium Mediated Gene Transformation"

- Animal Tissue Culture: Suggested for addition of topic "Primary tissue culture - HeLa Cells"

16.) Elective Paper :-

a) Suggested for revising of syllabus for "Research Methodology and Biostatistics", with addition of "Thesis writing, plagiarism, etc."

b) UG major elective paper - "Genomics and Proteomics" was suggested to be converted as core paper. In addition to that, "Computational Biology" subject to be added to the above paper. The existing "Computational Biology and

16) Suggested for change in topic title from "Environmental Biotechnology" to "Environmental Biotechnology and Biodiversity" with addition of topics related to "Biodiversity".

17) Converting "Elective paper :- Computational Biology" into Core paper was suggested by the experts. It had been suggested for addition of topics "Automated and Pyro sequencing, NEST, Sanger's method" in the syllabus and also suggested for removal of topics "Gene sequencing, Pharmacogenomics".

17) Project :- It has been suggested for "Group project" instead of "Individual project" and project hours to be reduced from 4 hours to 2 hours.

PG BIOTECHNOLOGY

18) Core paper 1 :- Biochemistry :- Suggestions were given for reordering the syllabus with changes like "Structure and different forms of DNA and RNA". It had been suggested for removal of repetition of topics like "Watson - Crick model".

19) Core paper 2 :- Bioinstrumentation :- Suggested for addition of advance and foreign author books.

20) Core paper 3. Molecular Biology and Molecular Genetics. As per suggestion of 10th meeting, no changes were observed.

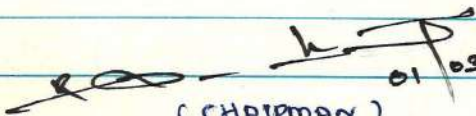
21) Core paper 4 :- Microbiology :- Suggested for reframing the syllabus as per University if needed.

- 22.) Core paper 5:- Immunotechnology :- As per suggestion of 10th meeting, no changes were observed.
- 23.) Core paper 6:- Animal Biotechnology:- Suggestions were made for rearrangement of syllabus with minor corrections. It had been suggested for removal of topic "knock down" and repeated portions in 5th unit.
- 24.) Core paper 7:- Genetic Engineering :- Suggestions were made for adding for "self study" portion as "DNA ~~inter~~ in forensic Science, Medicine and Agriculture". It was suggested to have addition of "Real time PCR, Problems encountered in Genetic Engineering, Cassettes in Gene fusion", with reordering of whole syllabus. Due to repetition of topics, suggestions were made for removal of "Microarray, miRNA, siRNA".
- 25.) Core paper 8: Environmental Biotechnology:- Suggestions were made for including more subtopics and to specify the topics. It was suggested for addition of "Environmental Assessment", in the current syllabus.
- 26.) Core paper 9: Bioprocess Technology :- Suggestions and discussion were done for the addition of "fermentation systems and Kinetics" in 3rd unit. Few minor corrections were suggested and for removal of topic "Bioreactors for Immobilized cells" from II unit.
- 27.) Core paper 10:- Plant Biotechnology:- Suggestions were given for adding "Agrobacterium → Agoinfection, Floral dip, Plantigen" in current topic of the syllabi. and also asked for rearrangement of books and references.

- 28.) Core paper 11: Genomics and Proteomics : Suggestions were made for corrections and minor mistakes in current syllabi.
- 29.) Practical 1: Biochemistry and Bioinstrumentation: - It has been suggested for addition of "Specific enzyme for experiment" and "Gel filtration". Suggestions were made for removal of "Acetone precipitation, Kinetics of enzyme, Affinity Chromatography".
- 30.) Practical 2: Molecular Genetics and Microbiology: - Suggestions were given for removal of "Isolation of microbes from root nodule".
- 31.) Practical 3: Immunotechnology and Animal Biotechnology: - As per the revised syllabi by 10th Annual meeting, no changes were made.
- 32.) Practical 4: Molecular Biology and Genetic Engineering: - Suggestions were made for adding "specified methods of PCR - Touchdown, Colony, Gradient", "Gene Amplification" and "Primer designing" in current syllabi.
- 33.) Practical 5: Bioprocess Technology and Plant Biotechnology: - Suggestions were given for addition of "Isolation of Amylase Producing Organism" and removal of "Isolation of Azospirillum for Biofertilizer" experiments in "Bioprocess technology". For "Plant Biotechnology", suggestions were given for removal of "Thin Layer Chromatography", and "Embryo culture", and to add "Somatic Embryogenesis".
- 34.) ELECTIVES: - Suggestions were made to revise the title and to include "Biostatistics", "IPR", "Bioethics" and

"Biosafety" in the core paper along with other related paper.

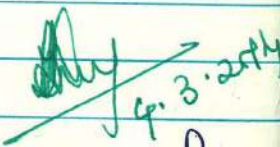
- 35.) PROJECT VIVA VOCE :- No changes were made as the previous meetings has revised and ordered.
- 36) Feed back from all the stakeholders were collected and analysed.


01/03/2014.

(CHAIRMAN)

HEAD,
DEPARTMENT OF BIOTECHNOLOGY
KONGUNADU ARTS AND SCIENCE COLLEGE
COIMBATORE - 641 029.




01/03/2014

[SIGNATURE OF THE PRINCIPAL]

Dr. T. MURALEESWARI
PRINCIPAL
Kongunadu Arts & Science College
(Autonomous)
COIMBATORE - 641029.