

**Institute of Applied Sciences & Humanities
Department of Biotechnology**

Agenda for 10th Meeting of Board of Studies


Date- 20-06-2020

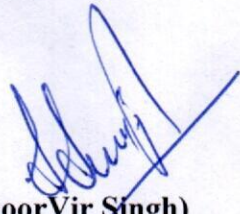
Time- 11:00 AM

Venue- Chamber of HOD Biotechnology, GLA University, Second Floor VI Block

Agenda Items-

1. Approval and Confirmation of the minutes of last meeting.
2. Approval of modified syllabi of B.Sc. (Hons.) Biotechnology programs.
3. Discussion and Approval of course structure and the detailed syllabi for the first year of B. Tech Biotechnology.
4. Approval of courses imparting employability/entrepreneurship/skill development in the B.Sc. (Hons.) Biotechnology, M.Sc. (Biotechnology) and M.Sc. (Microbiology & Immunology) programs.
5. To consider and approve introduction of CBCS (choice based credit system) in the III year of B.Sc. (Hons.) Biotechnology.
6. To consider and approve introduction of new courses in the B.Sc. (Hons.) Biotechnology, program.
7. To consider and approve modification in one course and to introduce one new course in PhD Programme, as recommended by the Research Cell of the University.
8. Agenda with permission of the chair.


(Dr. Vishal Khandelwal & Dr. Alok Brardwaj)
Secretary


(Prof. Shoorvir Singh)
Chairman

GLA University
Institute of Applied Sciences & Humanities
(Department of Biotechnology)

Minutes of the 10th Meeting of Board of Studies

Date- 22.06.2020

Time- 11:00 AM

Venue- Chamber of HOD Biotechnology, GLA University, Second Floor VI Block

Members Present-

- Prof. A.S. Vidyarthi, Director, NanhiPariSeemant Engineering Institute, Pithoragarh
- Prof. Birinchi K. Sarma, Dept. of Mycology and Plant Pathology, BHU, Varanasi
- Dr. Vimala Prakash, IPL Biologicals Limited, Gurgaon, Haryana
- Prof. Ashish Sharma, Associated Dean Academics, GLAU, Mathura.
- Prof. PiyushSinghal, Head- Dept. of Mechanical Engineering, GLAU, Mathura.
- Prof. Vinay Deolia, Head- Dept. of Electronics & Communication Engineering, GLAU, Mathura.
- Prof. B.R.K. Gupta, Head- Dept. of Physics, GLAU, Mathura.
- Prof. Deepak Kumar Das, Head- Dept. of Chemistry, GLAU, Mathura.
- Dr. Sanjay Maurya, Associate Head, Electrical Engineering, GLAU, Mathura.
- Dr. Vipin Dubey, Assistant Professor, Dept. of Mathematics, GLAU, Mathura.
- All faculty members, Dept. of Biotechnology, GLAU, Mathura.

Sub.: Meeting of Board of Studies B. Tech Biotechnology, B.Sc. (Hons.) Biotechnology, M.Sc. (Biotechnology) and M.Sc. Microbiology & Immunology).

Sir,

It is to inform you that the meeting of Board of Studies in the subject of B. Tech Biotechnology, B.Sc. (Hons.) Biotechnology, M.Sc. (Biotechnology) and M.Sc. Microbiology & Immunology has been fixed on 22 June, 2020 at 11:00 am in the Chamber of undersigned.

The agenda in meeting will include:

1. Approval and Confirmation of the minutes of last meeting.
2. Approval of modified syllabi of B.Sc. (Hons.) Biotechnology programs.
3. Discussion and Approval of course structure and the detailed syllabi for the first year of B. Tech Biotechnology.
4. Approval of courses imparting employability/entrepreneurship/skill development in the B.Sc. (Hons.) Biotechnology, M.Sc. (Biotechnology) and M.Sc. (Microbiology & Immunology) programs.
5. To consider and approve introduction of CBCS (choice based credit system) in the III year of B.Sc. (Hons.) Biotechnology.
6. To consider and approve introduction of new courses in the B.Sc. (Hons.) Biotechnology, program.
7. Agenda with permission of the chair.

Discussion & Suggestions:

Agenda No. I

Minutes of last meeting has been approved and confirmed

Agenda No. II

Approval of modified syllabi of B.Sc. (Hons.) Biotechnology.

On the basis of various feedbacks received from different stakeholders (Employer, Student, Faculty and Alumni) the revision/up gradation/modification in syllabus of existing courses in various programs is proposed as follows:

Programme	No. of Courses under consideration for revision	Name of the Courses under consideration for revision
B.Sc. (H) Biotechnology	2	<ul style="list-style-type: none"> • Human Physiology • Environmental Biology

The member considered and approved the same.

Syllabi of above courses are enclosed as Annexure-I.

Agenda No. 3

Discussion and Approval of course structure and the detailed syllabi for the first year of B. Tech Biotechnology.

(a) Approval of the course structure with particular emphasis on credits with respect to Humanities and social sciences, Basic Sciences, Engineering Sciences, Program Core, Program Electives, Open Electives, Project Work and Mandatory Non Graded Course

(i) Detailed course structure of B. Tech Biotechnology was placed by Head of Department in front of members of BOS for their suggestions and approval. Expert members of BOS have suggested and approved total credits i.e. 184 to be taught in entire B. Tech Biotechnology program. BOS members approved percentage wise distribution of credits as Humanities and social sciences (25), Basic Sciences (24), Engineering Sciences (28), Program Core (48), Program Electives (26), Open Electives (16) and Project Work (17).

(b) Approval of the syllabus with modification as suggested and recommended by members of BOS

Detailed syllabi of B. Tech Biotechnology first year were placed by Head of Department in front of members of BOS for their suggestions and approval. Expert members of BOS have suggested following suggestions for approval of syllabi of B. Tech Biotechnology.

- Members of BOS suggested that nomenclature of Elementary Mathematics II should be Mathematics II, taught in second semester of B. Tech Biotechnology and was approved.
- Members of BOS agreed to merge two subjects i.e. Biomolecules and Biochemistry of program core and was approved.
- BOS members suggested the merger of Animal Biotechnology Lab and Plant Biotechnology Lab and was approved. Members of BOS agreed the inclusion of new subject Bioprocess Engineering Lab in program core and was approved
- Members of BOS proposed that new subject Food Technology should be included in program core and was approved
- BOS members suggested modification in the nomenclature of Program electives with Genetic Engineering Bouquet. Members proposed the introduction of new subject Host-Pathogen interaction in Genetic Engineering Bouquet. Members agreed to separate Virology and Cancer Biology subject with two new subjects i.e. Virology and Cancer Biology. Molecular Diagnostics subject should be merged with Molecular Therapeutics with new nomenclature Molecular Therapeutics and Molecular Diagnostics and was approved.
- Members of BOS suggested the incorporation of Artificial Intelligence as new subject in Program electives with Bioinformatics Bouquet.
- Syllabus of above courses are enclosed as Annexure-II.

Agenda No.4:

Approval of courses having focus on employability/entrepreneurship/skill development in B.Sc. (Hons.) Biotechnology, M.Sc. (Biotechnology) and M.Sc. (Microbiology & Immunology).

Members considered and approve the same. Details enclosed as Annexure III.

Agenda No. 5:

To consider and approve introduction of CBCS (choice based credit system) in the III year of B.Sc. (Hons.) Biotechnology.

Members considered and approve the same. Details enclosed as Annexure IV.

Agenda No. 6:

To consider and approve introduction of new courses in the B.Sc. (Hons.) Biotechnology, program.

On the basis of feedback obtained from various stakeholders (Student, Alumni, Faculty and Employer) department presented detail of new courses to be introduced. After thorough discussion BOS approved the same. Details enclosed as Annexure V.

Agenda No. 7:

To consider and approve modification in one course and to introduce one new course in PhD Programme, as recommended by the Research Cell of the University.

Research Cell of the University recommended modification in the Syllabus of "Research Methodology" Course as well as recommended to introduce "Research and Publication Ethics" course in PhD Programme from the Session 2020-21. Syllabi of both the courses were duly considered by the board and subsequently approved. Details enclosed as Annexure VI.

Agenda No. 8:

Any agenda with permission of the chair.

The meeting ended with the vote of thanks to the chair.



(Dr. Vishal Khandelwal & Dr. Alok Bharadwaj)

Secretary



(Prof. Shoorvir Singh)

Chairman


**List of courses having focus on employability/ entrepreneurship/ skill development offered by the
Department (2020-21)**

S.No.	Name of the Course	Focus on Employability/ Entrepreneurship/ Skill development
1	Chemistry-I	Employability
2	Cell Biology	Employability
3	Biostatistics	Skill development
4	Chemistry-I Lab	Employability, Skill development
5	Cell Biology Lab	Skill development
6	Environmental Biotechnology Lab	Skill development
7	Biomolecules	Skill development
8	Chemistry-II	Employability
9	Environmental Science	Skill development
10	Computer Fundamentals and Applications	Skill development
11	Biomolecules Lab	Skill development
12	Chemistry-II Lab	Employability
13	Computer Application in Biotechnology Lab	Skill development
14	Molecular Biology	Employability, Skill development
15	Plant Science I	Employability
16	Biochemistry	Employability
17	Stem Cell Technology	Entrepreneurship, Skill development
18	Bioinformatics	Employability, Skill development
19	Molecular Biology Lab	Skill development, Employability
20	Plant Science I Lab	Employability
21	Biochemistry Lab	Employability
22	Bioinformatics Lab	Employability, Skill development
23	Instrumentation and Bio - Analytical Techniques	Employability, Skill development
24	Microbiology	Employability, Skill development
25	Immunology	Employability
26	Drug Discovery & Development	Employability, Skill development
27	Clinical Microbiology	Employability, Skill development
28	Instrumentation and Bio - Analytical Techniques Lab	Employability, Skill development
29	Microbiology Lab	Employability, Skill development
30	Immunology Lab	Employability
31	Clinical Microbiology Lab	Employability, Skill development
32	Plant Biotechnology	Employability
33	Recombinant DNA Technology	Employability, Skill development
34	Animal Biotechnology	Employability
35	Genomics & Proteomics	Employability
36	Plant Biotechnology Lab	Employability, Skill development
37	Recombinant DNA Technology Lab	Employability, Skill development
38	Animal Biotechnology Lab	Employability
39	Genomics & Proteomics Lab	Employability
40	Chemistry-III	Employability
41	Genetics	Employability
42	Plant Science II	Employability
43	Food and Industrial Biotechnology	Employability, Skill development
44	Enzymology	Employability



45	Evolution and Ecology	Employability
46	Chemistry-III Lab	Skill development
47	Genetics Lab	Skill development
48	Plant Science II Lab	Employability, Skill development
49	Food and Industrial Biotechnology Lab	Employability, Skill development
50	Enzymology Lab	Employability, Skill development
51	Evolution and Ecology Lab	Employability, Skill development
52	Fermentation Technology	Entrepreneurship, Skill development
53	Role of Biotechnology in Forensic Science	Entrepreneurship, Skill development
54	Developmental Biology	Employability
55	Human Physiology	Employability
56	Environmental Biotechnology	Employability, Skill development
57	Clinical Biochemistry	Entrepreneurship, Skill development
58	Fermentation Technology Lab	Entrepreneurship, Skill development
59	Role of Biotechnology in Forensic Science Lab	Entrepreneurship, Skill development
60	Developmental Biology Lab	Skill development
61	Human Physiology Lab	Skill development
62	Environmental Science Lab	Entrepreneurship, Skill development
63	Clinical Biochemistry Lab	Employability, Skill development
64	Project Training	Skill development
65	Advanced Biostatistics	Skill development
66	Biochemistry	Employability
67	Bioinformatics	Employability, Skill development
68	Biophysical Techniques	Employability, Skill development
69	Biostatistics & Biochemistry Lab	Employability, Skill development
70	Bioinformatics Lab	Employability, Skill development
71	Biophysical Techniques & Cell Biology Lab	Employability, Skill development
72	Microbiology	Employability
73	Immunology	Employability
74	Genetics & Molecular Biology	Employability, Skill development
75	Environmental Biotechnology	Employability, Skill development
76	Microbiology Lab	Employability, Skill development
77	Immunology Lab	Employability, Skill development
78	Genetic and Molecular Biology Lab	Employability, Skill development
79	Animal Biotechnology	Employability
80	Bioprocess Engineering & Fermentation Technology	Employability
81	RDT, Genomics & Proteomics	Employability, Skill development
82	Plant Biotechnology	Employability, Skill development
83	Nanobiotechnology	Employability
84	Enzyme Technology	Employability
85	Clinical Research in Medicinal Plants	Entrepreneurship, Skill development
86	Clinical Immunology	Entrepreneurship, Skill development
87	Nutritional Biochemistry	Employability, Skill development
88	Drug Discovery and Development	Entrepreneurship, Skill development
89	IPR, Patent, Trademarks & Bioethics	Entrepreneurship, Skill development
90	Plant Biotechnology and Bioprocess Engineering & Fermentation Technology Lab	Employability, Skill development
91	Animal Biotechnology, RDT and Genomics & Proteomics Lab	Employability, Skill development
92	Nanobiotechnology Lab	Employability, Skill development
93	Enzyme Technology Lab	Employability, Skill development

94	Clinical Research in Medicinal Plants Lab	Entrepreneurship, Skill development
95	Clinical Immunology Lab	Entrepreneurship, Skill development
96	Project Work	Skill development
97	General Microbiology	Skill development
98	General Microbiology & Biostatistics Lab	Employability, Skill development
99	Biochemistry & Biophysical Techniques Lab	Employability, Skill development
100	Systemic Bacteriology and Mycology	Employability
101	Systemic Virology	Employability
102	Bacteriology & Mycology Lab	Employability, Skill development
103	Genetics, Molecular Biology and Virology Lab	Employability, Skill development
104	Fermentation Technology and Industrial Microbiology	Entrepreneurship, Skill development
105	Food, Dairy and Agricultural Microbiology	Employability, Skill development
106	Advanced Immunology	Employability
107	Environmental Microbiology	Employability, Skill development
108	Animal Cell Culture	Employability
109	Fermentation Technology, RDT & Genomics & Proteomics Lab	Entrepreneurship, Skill development
110	Food, Dairy, Agricultural Microbiology & Advanced Immunology Lab	Employability, Skill development
111	Environmental Microbiology Lab	Employability, Skill development
112	Animal Cell Culture Lab	Entrepreneurship, Skill development
113	Project Work	Skill development
114	Engineering Chemistry	Employability
115	English Language skill for communication-I	Employability, Skill development
116	Electrical Engineering	Employability, Skill development
117	Python programming	Employability, Skill development
118	Engineering Chemistry Lab	Skill development
119	English Language Lab - I	Skill development
120	Electrical Engineering Lab -I	Skill development
121	Python programming Lab	Skill development
122	Animal and Plant Physiology	Employability, Skill development
123	English Language skill for communication-II	Employability, Skill development
124	Electronics Engineering	Employability, Skill development
125	English Language Lab - II	Skill development
126	Electronics Engineering Lab - I	Skill development
127	Engineering Workshop Practices Lab	Skill development
128	Animal and Plant Physiology Lab	Skill development
129	Research Methodology	Employability, Skill development
130	Bioinformatics & Instrumentation	Employability, Skill development
131	Biological Chemistry	Employability
132	Research & Publication Ethics	Employability, Skill development


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