

# **UNIVERSITY OF KASHMIR**

## **Department of Bio-Technology**

#### NOTES

#### Minutes of the meeting

Minutes of the meeting of the board of postgraduate studies in Biotechnology held on 10th of August 2023 at 11:00 a.m.

Agenda: Revision/restructuring and redesigning of the syllabus for the Masters program in Biotechnology.

- The meeting of "The board of postgraduate studies in Biotechnology" was held on 10th of August 2023 at 11:00 a.m. under the chairmanship of Professor Mahboobul Hussain, head Department of biotechnology at the department of biotechnology University of Kashmir. The chairman of the board of PG studies welcomed the members and declared the meeting open. The members were granted a mandate as per guidelines for revision/rearrangement/reshuffle of the courses in MSc Biotechnology. Different suggestions were proposed during the meeting which were unanimously agreed upon. Revision/rearrangement of the syllabi/topics whatever necessary in the syllabus were made and agreed upon. The following was finally resolved:
- Introduction of three new courses viz., "Environmental Biotechnology" (BT23204CR), "Bioethics, Biosafety and Intellectual Property Rights" (BT23305DC), "Basic Recombinant DNA Technology" (BT23007GE) Mere introduced in second, third and fourth semester respectively.
- Open elective course previously titled as "Basics in Immunology" (BT18002OE) was 2 renamed as "Introduction to Cancer biology" (BT0006GE)
- The course "Plant Biotechnology" was shifted from second to third semester and in its 3. place "Animal Cell Science and Technology" was moved from third to second semester.
- The General Elective course "Oxidant Signaling" was renamed as "Redox Biology" in the 4 second semester.
- The course "Introduction to Systems Biology: Network and Noise" was renamed as 5 "Systems & Computational Biology"; its unit-III shall include the bioinformatics/computation portion.
- 6 In the 4th semester, the course titled "Bioethics" was shifted from GE to OE (new code shall be: BT2300 8OE).
- The course titled "Chromatin and Epigenetics" (BT18205DC) was removed and instead its contents were incorporated in the course "Molecular Biology-II" (BT23202CR).
- 8 The course titled "Spectroscopy and Microscopy" (BT18207DC) was removed as a course and instead its contents were incorporated as a new unit in the course titled "Biotechniques" (BT23105DC).
- 9 The course titled "Non-coding RNAs; features and functions in Neuronal Stem cells" (BT18305DC) was removed from the syllabus.
- The course titled "Human and Medical Genetics" which was earlier a discipline Centric 10. course was renamed as "Human Genetics" (BT23304CR) and shifted as a core course.
- 11. All the lab courses viz., Laboratory course I, II & III, were upgraded from from 2 to 3 credits and shifted from Core to Discipline Centric, now coded as BT23107DC, BT23207DC & BT23307DC respectively.
- 12. The course titled "Introduction to Protein Science" (BT18004OE), shall be replaced by "Nutritional Biotechnology" (BT23004OE).
- In all other courses minor revisions of the contents wherever necessary, were done 13 keeping in mind the latest advances in that field. Dr. Mudara Andes

The meeting ended with a note of thanks to the chair.

Enclosure: Approved syllabi for 2023 batch onwards

11 Prof. Mahboobul Hussain Chairman

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### Syllabus for Choice Based Credit Courses for M Sc. in Biotechnology. (2023 onwards)

Semeste r	S. No.	Course type	Course Code	Course Title	Credit distributi on			Total Credits	Internal assessme nt Marks	Semeste r end marks	Total mark
					L	T	P				
	1	Core (CR)	BT23- 101CR	Cell Biology	3	1	0	4	20	80	100
	2		BT23- 102CR	Molecular Biology-I	3	1	0	4	20	80	100
	3		BT23- 103CR	Immune Biology	3	1	0	4	20	80	100
First	4		BT23- 104CR	Biomolecules	2	0	0	2	10 40		50
	5	Discipline centric (DC)	BT23- 105DC	Biotechniques	2	1	0	3	15	60	75
	6		BT23- 106DC	Biostatistics	2	0	0	2	10	40	50
	7.		BT23- 107DC	Laboratory Course-I	0	0	3	3	15 60		75
	8.	Generic elective (GE)	BT23- 001GE	Biochemical techniques	2	0	0	2	10 40		50
	9	Open Elective (OE)	BT23- 002OE	Introduction to cancer Biology	2	0	0	2	10	40	50
	1		DT22	A · · · 1	0		-				
Second	1	Core (CR)	BT23- 201CR	Animal cell Science and Technology	3	1	0	4	20 8	30 :	100
	2		BT23- 202CR	Molecular Biology-II	3	1	0	4	20 8	30 :	100
	3		BT23- 203CR	Advanced Enzymology	3	1	0	4	20 8	30 :	100
	4		BT23- 204CR	Environmental Biotechnology	2	0	0	2	10 4	10 !	50
	5	Discipline centric (DC)	BT23- 205DC	Microbiology	2	0	0	2	10 4	10 !	50
	6		BT23- 206DC	Intermediary Metabolism	2	1		3	15 6	60 7	
	7		BT23- 207DC	Laboratory Course-II	0	0	3	3	15 6	60 7	
	8	Generic Elective (GE)	BT23- 003GE	Redox Biology	2	0	0	2	10 4	10 !	50
Jaw "	9	Open Elective (OE)	BT23- 004OE	Nutritional Biotechnology	2	0	0	2	10 4	10 5	50

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Third	2		301CR BT23-	Tiarre	3	1	0	4	20	80	100
			302CR	Biotechnology					20	80	100
	3		BT23- 303CR	Bioprocess Engineering and Fermentation Technology	3	1	0	4	20	80	100
	4		BT23- 304CR	Human Genetics	2	0	0	2	10	40	50
	5	Discipline centric (DC)	BT23- 305DC	Bioethics, Biosafety and Intellectual Property Rights.	2	0	0	2	10	40	50
	6		BT23- 306DC	Systems and computational Biology	2	1	0	3	15	60	75
	7		BT23- 307DC	Laboratory Course-III	0	0	3	3	15	60	75
	8	Generic Elective (GE)	BT23- 005GE	Molecular Mechanism of Plant Life	2	0	0	2	10	40	50
	9	Generic Elective (GE)	BT23- 006 GE	Cancer Immunology	2	0	0	2	10	40	50
Fourth	1		BT23- 401CR	Proposal Writing	1	0	0	1	0	25	25
	2		BT23- 402CR	Research Based project	0	0	14	14	70	280	350
	3	Core (CR)	BT23- 403CR	Seminar and Journal Club	0	2		2	10	40	50
	4		BT23- 404CR	Project presentation	0	3		3	15	60	75
	5		BT23- 405CR	Project viva	0		2 0	2	0	50	50
	6.	Generic elective (GE)	BT23- 007GE	Basic Recombinant DNA Technology	2	(	0 0	2	10	40	50
	7	Open elective	BT23- 0080E	Bioethics	2		0 0	2	10	40	50

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