

**Courses offered by COB for first Semester (2022-23) -**

<b>Sr. No</b>	<b>Course no.</b>	<b>Course title</b>	<b>Credit hours</b>	<b>Instructor (s)</b>
<b>PG Courses (Molecular Biology &amp; Biotechnology)</b>				
1	MBB501	Principles of Biotechnology	3+0	Shikha Yashveer & Upendra Kumar
2	MBB502/ BIOCHEM 504/ BIF508	Fundamentals of Molecular Biology	3+0	Shikha Yashveer & faculty from Biochemistry
3	MBB505	Techniques in Molecular Biology –I	0+3	Upendra Kumar
4	MBB508/B IF517	Genomics & Proteomics	2+1	Nita Lakra & Navjeet Ahalawat
5	MBB510	Biosafety, IPR and Bioethics	2+0	Navjeet Ahalawat
6	MBB553/ STAT534/ FST531/ SOC512	Biostatistics and Computers	2+1	To be offered by Dept of Mathematics & Statistics
7	MBB555/ BIF501/FS C604	Introduction to Bioinformatics	2+1	To be offered by Department of Bioinformatics & Computational Biology
8	MBB591	Master's Seminar	1	Shikha Yashveer
9	MBB601	Advances in Plant Molecular Biology	3+0	Upendra Kumar
10	MBB602	Advances in Genetic Engineering	3+0	Shikha Yashveer
11	MBB603	Advances in Microbial Biotechnology	3+0	Nita Lakra
12	MBB604/ VSC604/ FLA605	Advances in Crop Biotechnology	3+0	Upendra Kumar
13	MBB691	Doctoral Seminar I	1	Shikha Yashveer
14	MBB692	Doctoral Seminar II	1	Shikha Yashveer
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**PG Courses (Agricultural Biotechnology)**

<b>Sr. No</b>	<b>Course No.</b>	<b>Course Name</b>	<b>Credit hours</b>	<b>Instructor (s)</b>
1	ABT501	Principles of Biotechnology	3+0	Shikha Yashveer & Upendra Kumar
2	ABT502	Molecular Biology	3+0	Shikha Yashveer & faculty from Biochemistry
3	ABT504	Techniques in Molecular Biology & Genetic Engineering	0+3	Upendra Kumar
4	ABT508	Molecular Pathology & Molecular	2+1	Nita Lakra

		Diagnostics		
5	ABT509	IPR, Bio-safety and Bioethics	2+0	Navjeet Ahalawat
6	ABT514	Stress Biology	2+0	Nita Lakra
7	ABT515	Introduction to Bioinformatics	2+1	To be offered by Department of Bioinformatics & Computational Biology
8	ABT517	Techniques in Genomics & Proteomics	0+3	Upendra Kumar and Nita Lakra
9	ABT518	Molecular Basis of Host-Pathogen interaction	2+1	Shikha Yashveer
10	ABT591	Master's Seminar	1	Shikha Yashveer

### PG Courses (Bioinformatics)

Sr. No.	Course no.	Course title	Credit hours	Instructor (s)
1.	BIF501/ FSC 604/ MBB 555	Introduction to bioinformatics	2+1	Anil Panwar
2.	BIF 502	Advanced bioinformatics	2+1	Neeru Redhu
3.	BIF 504/ BIOCHEM 501	Basic biochemistry	3+0	To be offered by Dept of Biochemistry
4.	BIF 505/ STAT 532	Statistics for biological sciences	2+1	To be offered by Dept of Mathematics and statistics
5.	BIF 506	Concepts in computing	2+2	Anil Panwar
6.	BIF 507	Programming languages for bioinformatics	2+2	Neeru Redhu
7.	BIF 509/ STAT533	Mathematics for biological sciences	2+0	To be offered by Dept of Mathematics and statistics
8.	BIF 513	Biomolecular sequence analysis	1+1	Neeru Redhu
9.	BIF 516	Molecular modelling and drug design	2+2	Navjeet Ahalawat
10.	BIF 601	Genome wide association study	2+1	Navjeet Ahalawat
11.	BIF 602	Computational analysis of non-coding RNAs	1+1	Navjeet Ahalawat
12.	BIF 605	Comparative and functional genomics	1+1	Neeru Redhu
13.	BIF 606	Phylogenetics	2+1	Anil Panwar
14.	BIF 607	R and high dimensional genome data	1+1	Neeru Redhu
15.	BIF 610	Quantum theory and applications in bioinformatics	1+1	Navjeet Ahalawat
16.	BIF 591	Master's seminar	1	Anil Panwar
17.	BIF 691	Doctoral seminar I	1	Anil Panwar
18.	BIF 692	Doctoral seminar II	1	Anil Panwar