



BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI – 620 024
M.Sc. BIO-MEDICAL SCIENCE (FIVE YEAR INTEGRATED) PROGRAM

COURSE STRUCTURE- REVISED on 12th March 2018

Academic year 2018 to 2021

Semester I

24 CREDITS (teaching hours 30)

S. No.	Sem I	Course	Course Code	Marks	Hr / W		Credits	
					T	P	T	P
1.	I	Language Course-1	18BMS11TL3 18BMS11FL3	100	6		3	
2.	I	English Course-1	18BMS11EL3	100	6		3	
3.	I	Ancillary Course -1	18BMS11AC1	100	4		4	
4.	I	Ancillary Practical -1	18BMS11AP1	100		3		3
5.	I	Core Course -1	18BMS11C1	100	6		6	
6.	I	Core Practical-1	18BMS11P1	100		3		3
7.	I	Value Education	18BMS11VE	100	2		2	
				700	24 + 6 = 30		18 + 6 = 24	

Semester II

24 CREDITS (teaching hours 30)

S. No.	Sem II	Course	Course Code	Marks	Hr / W		Credits	
					T	P	T	P
8	II	Language Course-2	18BMS12L2 18BMS12FL2	100	6		3	
9.	II	English Course-2	18BMS12EL2	100	6		3	
10.	II	Ancillary Course -2	18BMS12AC2	100	4		4	
11.	II	Ancillary Practical -2	18BMS12AP2	100		3		3
12	II	Core Course -2	18BMS12C2	100	6		6	
13	II	Core Practical-2	18BMS12P2	100		3		3
14	II	Environmental Science	18BMS12ES	100	2		2	
				700	24 + 6 = 30		18 + 6 = 24	

Semester III

24 CREDITS (teaching hours 30)

S. No.	Sem III	Course	Course Code	Marks	Hr / W		Credits	
					T	P	T	P
15.	III	Language Course-3	18BMS23L3 18BMS23FL3	100		6	3	
16.	III	English Course-3	18BMS23EL3	100	6		3	
17	III	Ancillary Course -3	18BMS23AC3	100	4		4	
18	III	Ancillary Practical-3	18BMS23AP3	100		3		3
19	III	Core Course -3	18BMS23C3	100	6		6	
20	III	Core Practical -3	18BMS23P3	100		3		3
21	III	Non Major elective-1	18BMS23NM1	100	2		3	
				700	24 + 6 = 30		18 + 6 = 24	

Semester IV**24 CREDITS (teaching hours 30)**

S. No.	Sem IV	Course	Course Code	Marks	Hr / W		Credits		
					T	P	T	P	
22.	IV	Language Course-4	18BMS24L4 18BMS24FL4	100	6		3		
23.	IV	English Course-4	18BMS24EL4	100	6		3		
24.	IV	Ancillary Course -4	18BMS24AC4	100	3		3		
25.	IV	Ancillary Practical-4	18BMS24AP4	100		3		3	
26.	IV	Core Course -4	18BMS24C4	100	5		5		
27.	IV	Core Practical -4	18BMS24P4	100		3		3	
28.	IV	Non Major elective-2	18BMS24NM2	100	2		2		
29.	IV	Gender studies	18BMS24GS	100	2		2		
					800	24 + 6 = 30	18 + 6 = 24		

Semester V**29CREDITS (teaching hours 30)**

S. No.	Sem V	Course	Course Code	Marks	Hr / W		Credits		
					T	P	T	P	
30.	V	Core Course -5	18BMS35C5	100	5		5		
31.	V	Core Course -6	18BMS35C6	100	5		5		
32.	V	Core Course -7	18BMS35C7	100	5		5		
33.	V	Core Practical -5	18BMS35P5	100		4		3	
34.	V	Elective Core-1	18BMS35E1	100	5		5		
35.	V	Skill Based Elective-1	18BMS35S1	100	2		2		
36.	V	Skill Based Elective-2	18BMS35S2	100	2		2		
37.	V	Soft Skill Development	18BMS35SS	100	2		2		
					800	24 + 6 = 30	26 + 3 = 29		

Semester VI**29CREDITS (teaching hours 30)**

S. No.	Sem VI	Course	Course Code	Marks	Hr / W		Credits		
					T	P	T	P	
38.	VI	Core Course -8	18BMS36C8	100	6		6		
39.	VI	Core Course -9	18BMS36C9	100	6		6		
40.	VI	Core Practical -6	18BMS36P6	100		5		4	
41.	VI	Elective Core-2	18BMS36E2	100	6		6		
42.	VI	Elective-Core-3	18BMS36E3	100	6		6		
43.	VI	Extension Activities	18BMS36EA	100	1		1		
					600	25 + 5 = 30	25 + 4 = 29		

Semester VII**22 CREDITS (teaching hours 30)**

S. No.	SemVII	Course	Course Code	Mar ks	Hr / W		Credits	
					T	P	T	P
39.	VII	Core Course -10	18BMS47C10	100	5		4	
40.	VII	Core Practical -7	18BMS47P7	100		8		4
41.	VII	Core Course -11	18BMS47C11	100	5		4	
42.	VII	Core Course -12	18BMS47C12R/M	100	5		4	
43.	VII	Core Course -13	18BMS47C13G/C	100	5		4	
44.	VII	Non Major Elective -3	18BMS59NM3	100	2		2	
				600	22 + 8=30		18 + 4=22	

Semester VIII**26 CREDITS(teaching hours 30)**

S. No.	Sem VIII	Course	Course Code	Mark s	Hr / W		Credits	
					T	P	T	P
46.	VIII	Core Course -14	18BMS48C14	100	5		5	
47.	VIII	Core Course -15	18BMS48C15	100	5		5	
48.	VIII	Core Practical -8	18BMS48P8	100		8		4
49.	VIII	Major Elective Core-4	18BMS48E4 P/N	100	5		5	
50.	VIII	Major Elective Core-5	18BMS48E5 D/A	100	5		5	
51.	VIII	Non Major Elective -4	18BMS59NM4	100	2		2	
				600	22+ 8 =30		22 + 4=26	

Semester IX**24 CREDITS(teaching hours 30)**

S. No.	Sem IX	Course	Course Code	Mar ks	Hr / W		Credits	
					T	P	T	P
53.	IX	Core Course -16	18BMS59C16	100	6		5	
54.	IX	Core Course -17	18BMS59C17	100	6		5	
55.	IX	Core Practical -9	18BMS59CP9	100		8		4
56.	IX	Major Elective Core-6	18BMS59E6 C/N	100	5		5	
57.	IX	Major Elective-Core-7	18BMS59E7 N/P	100	5		5	
				500	22 +8= 30		22 + 4=24	

Semester X**20 CREDITS (teaching hours 30)**

S. No.	Sem X	Course	Course Code	Mar ks	Hr / W		Credits	
					T	P	T	P
58.	X	Core Course -18	18BMS510C18	100	6		5	
59.	X	Project	18BMS510PW	100		24	15	
				200	6+24 =30		20+0= 20	

1. Students should take Non Major Elective Courses offered by other Departments
2. For Major Elective-Core student should select subject of their interest
3. For the Language Courses-1 student should take either Tamil or French

DISTRIBUTION OF CREDITS

Course		S.NO	SEMESTER	CREDITS		HOURS/W	
				T	P	T	P
M.Sc (Int)	B.Sc	1	I	18	6	24	6
		2	II	18	6	24	6
		3	III	18	6	24	6
		4	IV	18	6	24	6
		5	V	26	3	24	6
		6	VI	25	4	25	5
		Total		123 + 31 = 154*		145 + 35 = 180	
	M.Sc	7	VII	18	4	22	8
		8	VIII	22	4	22	8
		9	IX	22	4	22	8
10		X	20	0	4	26	
	Total		82 + 12 = 92*		70 + 50 = 120		
	M.Sc., (Int) TOTAL		154 + 92 = 246*		180 + 120 = 300		
Total Credits				246			

* Students should earn minimum of 140 credits for their BSc (Biomedical Science) and minimum of 230 credits for their Integrated M.Sc Biomedical Science program.

List of Courses

CORE COURSE	TITLE	CODE NO	CREDITS
Language Course-1	இக்கால இலக்கியம்-1 (Lang Dept) or French-1	18BMS11TL3/FL3	3 Credits
English Course-1	English for Effective Communication (Lang Dept)	18BMS11EL3	3 Credits
Ancillary Course -1	Basic Mathematics& Computer	18BMS11AC1	4 Credits
Ancillary practical -1	Practical -1 Basic Mathematics& Computer Programming	18BMS11AP1	3 Credits
Core Course -1	General Biology and Cell Biology (SSP)	18BMS11C1	6 Credits
Core Practical-1	Practical 2 General Biology and Cell Biology	18BMS11P1	3 Credits
Value Education	Value Education	18BMS11VE	2 Credits
Language Course-2	இடைக்கால இலக்கியமும் புதினமும் or French-2	18BMS12L2/ FL2	3 Credits
English Course-2	English for Proficiency Development	18BMS12EL2	3 Credits
Ancillary Course -2	Chemistry (Chem Dept)	18BMS12AC2	4 Credits
Ancillary Practical -2	Practical-3 Basic Laboratory Techniques	18BMS12AP2	3 Credits
Core Course -2	Human Anatomy and Physiology	18BMS12C2	6 Credits
Core Practical-2	Practical-4 Human Anatomy & Physiology	18BMS12P2	3 Credits
Environmental Science	Environmental Science	18BMS12ES	2 Credits
Language Course-3	காப்பியமும் நாடகமும் or French-3	18BMS12L3/ FL3	3 Credits
English Course-3	English Language Course: English for Practice	18BMS23EL3	3 Credits
Ancillary Course -3	Ancillary Physics	18BMS23AC3	4 Credits
Ancillary Practical-3	Practical-5 Cell Biology	18BMS23AP3	3 Credits
Core Course -3	Basic Biochemistry	18BMS23C3	6 Credits
Core Practical -3	Practical-6 Biochemistry	18BMS23P3	3 Credits
Non Major elective-1	Applied microbiology (offered to other students)	18BMS23NM1	2 Credits
Language Course-4	பண்டைய இலக்கியம் or French-4	18BMS24L4/ FL4	3 Credits
English Course-4	English for Professional Communication	18BMS24EL4	3 Credits
Ancillary Course -4	Bioinformatics	18BMS24AC4	3 Credits
Ancillary Practical-4	Practical-7 Bioinformatics	18BMS24AP4	3 Credits
Core Course -4	Human pathology	18BMS24C4	5 Credits
Core Practical -4	Practical-8 Human pathology	18BMS24P4	3 Credits
Non Major elective-2	Human Pathology (offered to other students)	18BMS24NM2	2 Credits
Gender studies	Gender studies	18BMS24GS	2 Credits
Core Course -5	Pharmacology	18BMS35C5	5 Credits
Core Course -6	Principle of human Genetics	18BMS35C6	5 Credits
Core Course -7	Microbiology	18BMS35C7	5Credits
Core Practical -5	Practical-9 Microbiology	18BMS35P5	3 Credits
Elective Core-1	Molecular Biology	18BMS35E1	5 Credits
Skill Based Elective-1	Biosafty and Bioethics	18BMS35S1	2 Credits
Skill Based Elective-2	Biotechniques	18BMS35S2	2 Credits
Soft Skill Development	Soft skill Development	18BMS35SS	2 Credits
Core Course -8	Embryology	18BMS36C8	6 Credits
Core Course -9	Clinical Biochemistry	18BMS36C9	6 Credits
Core Practical -6	Practical-10 Clinical Biochemistry (practical)	18BMS36P6	4 Credits
Elective Core-2	Basic Immunology	18BMS36E2	6 Credits
Elective-Core-3	Trends in Modern Biology	18BMS36E3	6 Credits
Extension Activities	Extension Activities	18BMS36EA	1 Credits
Core Course -10	Genetic Engineering	18BMS47C10	4 Credits
Core Practical -7	Practical-11 Genetic Engineering	18BMS47P7	4 Credits
Core Course -11	Virology	18BMS47C11	4 Credits
Core Course -12	Reproductive Biology/ Molecular Medicine	18BMS47C12R/M	4Credits
Core Course -13	Genomics / Cardiovascular Biology	18BMS47C13G/C	4 Credits

Non Major Elective -3	Students' choice (from other Department)	18BMS59NM3	2Credits
Core Course -14	Stem Cell Bio & Tissue Engineering	18BMS48C14	5 Credits
Core Course -15	Clinical Microbiology	18BMS48C15	5 Credits
Core Practical -8	Practical-12 Clinical Microbiology	18BMS48P8	4 Credits
Major Elective Core-4	Proteomics / Neurobiology*	18BMS48E4 P/N	5 Credits
Major Elective Core-5	Drug Discov & Assay Dev /Adv Paper in Immunology*	18BMS48E5 D/A	5 Credits
Non Major Elective -4	Students' choice (from other Department)	18BMS59NM4	2 Credits
Core Course -16	Cancer Biology	18BMS59C16	5 Credits
Core Course -17	Immune & Molecular Diagnostics	18BMS59C17	5 Credits
Core Practical -9	Practical-13 Immune & Molecular Diagnostics	18BMS59CP9	4 Credits
Major Elective Core-6	Cell Signaling / Nephrology *	18BMS59E6 C/N	5 Credits
Major Elective-Core-7	Nanomedicine / Pharmaceutical Technology *	18BMS59E7 N/P	5 Credits
Core Course -18	Self Study	18BMS510C18	5 Credits
Project	Project	18BMS510PW	15 Credits

LIST OF ELECTIVES

Major Electives

18BMS35E1	Molecular Biology	5credits
18BMS36E2	Basic Immunology	6credits
18BMS36E3	Trends in Modern Biology	6credits
18BMS48E4 P	Proteomics	5credits
18BMS48E4 N	Neurobiology	5credits
18BMS48E5 D	Drug Discov & Assay Dev	5credits
18BMS48E5 A	Adv Paper in Immunology	5credits
18BMS59E7 P	Pharmaceutical Technology	5credits
18BMS59E6 C	Cell Signaling	5credits
18BMS59E6 N	Nephrology	5credits
18BMS59E7 N	Nanomedicine	5credits

Non-Major Electives (To be offered to students from other Dept)

18BMS23NM1	Applied Microbiology	2credits
18BMS24NM2	Human Pathology	2credits