

VEL TECH MULTI TECH Dr.RANGARAJAN Dr.SAKUNTHALA ENGINEERING COLLEGE
DEPARTMENT OF BIOMEDICAL ENGINEERING
2019-2023 BATCH (CO - PO & PSO MAPPING)

S.No	Course Code	Course Name	MAPPING WITH PO's												MAPPING WITH PSO'S		
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	191HS101	English for Engineering Students	0	0	0	0	0	0	0	3	3	3	0	2	0	0	0
2	191CH101	Engineering Chemistry	3	3	2	2	0	2	2	0	0	0	0	2	1	0	0
3	191PH101	Engineering Physics	3	3	2	2	0	2	2	2	2	0	0	2	1	0	0
4	191MA101	Engineering Mathematics I	3	3	2	2	1	0	0	0	0	0	0	1	0	0	1
5	191ME111	Basic Civil and Mechanical Engineering	3	3	1	1	0	2	2	1	0	0	0	2	0	0	0
6	191EE111	Basic Electrical and Electronics Engineering	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0
7	191ME112	Engineering Graphics	1	1	2	0	3	1	0	0	0	1	1	1	0	0	0
8	191PH10A	Physics Laboratory	3	3	2	2	0	2	2	2	2	0	0	2	1	0	0
9	191CH10A	Chemistry laboratory	3	3	2	2	0	2	2	1	2	0	0	2	1	0	0
10	191HS201	Environment Science and Engineering	3	3	2	2	0	2	3	2	0	0	0	2	0	0	0
11	191MA201	Engineering Mathematics II	3	3	2	2	2	0	0	0	0	0	0	2	1	0	0
12	191PH201	Materials Science For Biomedical Engineering	3	3	2	2	0	2	2	2	2	0	0	2	1	0	0
13	191EC21A	Electronic Devices and Circuits	3	3	2	2	0	0	0	0	0	0	0	2	2	1	0
14	191BM221	Introduction To Biomedical Engineering	3	3	3	2	1	0	0	2	0	0	0	1	3	2	0
15	191BM222	Fundamentals Of Biochemistry	3	0	2	2	0	2	0	0	0	0	0	1	3	1	0
16	191ME21A	Engineering Practices Laboratory	3	3	2	2	0	2	3	2	0	0	0	2	2	1	0
17	191EC21A	Circuits and Devices Laboratory	3	3	2	2	0	0	0	0	0	0	0	2	3	2	0
18	191BM22A	Bio-Chemistry Laboratory	3	0	2	2	0	2	0	0	0	0	0	2	3	1	1
19	191MA301	Linear Algebra And Numerical Methods	3	0	0	0	3	0	0	0	0	0	0	1	1	0	0
20	191CS311	Data Structures In C	3	3	3	3	3	3	0	0	0	0	3	3	3	3	2
21	191BM321	Anatomy And Human Physiology	3	2	1	1	0	0	0	0	1	0	1	2	3	1	1

22	191BM322	Digital Logic Design	3	3	3	1	0	0	0	0	0	0	0	1	3	2	1
23	191BM323	Signals And System	3	3	3	2	2	1	0	0	0	0	0	3	3	2	1
24	191BM324	Biosensors & Instrumentation	3	3	3	3	2	2	1	0	1	0	1	3	3	1	2
25	191CS31A	Data Structures In C Laboratory	3	3	3	2	0	1	1	1	1	2	0	3	3	2	3
26	191BM32A	Anatomy And Human Physiology Laboratory	3	2	2	1	2	2	0	1	1	1	0	2	3	1	1
27	191BM32B	Digital Design Laboratory	3	3	3	2	0	0	0	0	0	0	0	2	3	2	2
28	191MA401	Probability And Random Process	3	2	0	0	3	0	0	0	0	0	0	1	1	0	0
29	191BM421	Biomedical Instrumentation	3	3	2	1	1	1	1	0	0	0	0	2	3	2	1
30	191BM422	Biomechanics	3	2	1	1	3	1	1	2	0	0	0	2	3	2	1
31	191BM423	Biosignal Processing	3	2	2	2	2	2	1	0	0	0	0	2	3	2	1
32	191BM424	Pathology And Microbiology	3	2	1	1	0	0	0	0	1	0	1	3	3	2	1
33	191BM425	Bioethics & Intellectual Property Rights (IPRs)	0	0	0	2	0	1	1	3	0	1	0	1	1	0	0
34	191HS40A	Reading And Writing Skill Laboratory	0	0	0	0	0	0	0	2	3	3	0	3	1	0	0
35	191BM42B	Biosignal Processing Lab	3	3	3	2	3	0	0	0	0	0	0	2	3	2	1
36	191BM42A	Pathology And Microbiology Lab	2	3	3	1	2	0	0	2	2	0	0	2	3	2	1
37	191BM521	Diagnostic And Therapeutic Equipment	3	2	2	2	0	2	2	1	0	0	0	3	3	3	2
38	191BM522	Hospital Management	0	0	0	0	0	3	2	3	1	0	2	1	0	0	2
39	191BM523	Control Systems in medicine	3	3	3	3	2	0	0	0	0	0	0	0	2	2	3
40	191BM524	Biomaterials & Artificial Organs	2	0	3	0	0	3	3	1	2	0	0	3	3	3	2
41	191BM525	Microprocessor& Microcontroller	3	3	3	3	2	0	0	0	0	0	0	0	2	2	3
42	191BM52B	Diagnostic And Therapeutic Equipments Lab	3	2	2	2	0	2	2	2	0	0	0	3	3	3	2
43	191BM52A	Microprocessor & Microcontroller Lab	3	3	3	3	2	0	0	0	0	0	0	0	2	2	3
44	191BM621	Advanced Microcontrollers and its Applications	3	2	2	2	2	0	0	0	0	0	0	2	2	2	0
45	191BM622	Communication Systems	3	2	2	2	0	2	0	0	0	0	0	2	2	2	0
46	191BM623	Medical Informatics	3	0	0	0	2	1	1	1	0	0	0	0	1	1	1
47	191BM624	Radiological Equipments	3	3	2	3	0	1	0	1	0	0	0	1	2	1	1

48	191ME546	Renewable Energy Sources	3	2	2	2	0	2	2	1	0	0	0	3	2	0	1
49	191HS60A	Communication Skills Laboratory	0	0	0	0	0	0	0	0	1	3	3	0	0	0	0
50	191BM62A	Communication Systems Laboratory	3	2	2	2	0	2	0	0	0	0	0	2	2	2	0
51	191BM62B	Innovation Practices Laboratory	3	3	3	3	3	3	3	2	2	2	2	3	3	3	3
52	191BM721	Medical Device Design	3	2	1	1	0	1	0	0	0	0	0	1	3	1	1
53	191BM722	Medical Imaging Processing	3	3	3	2	2	0	0	0	0	0	0	1	3	1	0
54	191BM723	Medical Robotics	3	3	3	3	2	3	0	0	2	0	0	2	3	2	1
55	191CS547	Internet of Things	3	2	2	2	2	0	0	0	0	0	0	3	3	3	0
56	191BM72A	Medical Devices Laboratory	3	3	2	2	2	1	0	0	0	0	0	2	3	1	0
57	191BM72B	Medical Image Processing Laboratory	3	3	3	3	3	0	0	0	0	0	0	1	3	1	0
58	191BM77A	Project Work Phase-I	3	3	3	3	3	3	3	2	2	2	2	3	3	3	3
59	191BM87A	Project Work Phase-II	3	3	3	3	3	3	3	2	2	2	2	3	3	3	3
60	191BM532	Biometric Systems	3	2	3	2	2	2	0	2	1	1	0	2	3	3	2
61	191BM633	Telehealth Technology	3	2	2	1	1	1	1	0	2	0	0	3	3	2	1
62	191BM733	Lasers In Medicine	3	2	2	2	0	2	0	1	0	0	0	1	2	1	0
63	191BM738	Pattern Recognition And Neural Networks	3	2	2	2	2	0	0	0	0	0	0	3	3	3	0
64	191BM831	Assist Devices	3	2	2	2	2	2	2	1	0	0	0	3	3	2	3
65	191BM837	Rehabilitation Engineering	2	2	3	2	2	2	3	1	2	2	3	3	3	0	2
		Mapping	2.69	2.18	2	1.72	1.12	1.2	0.8	0.75	0.58	0.35	0.323	1.877	2.1231	1.32308	0.923076923