National Institute of Technology Raipur
Course of Study and Scheme of Examination — B. Tech. 5th Semester — Biomedical Engg.

S. No.	Subject Code	Subject Name	L	T	P	TA	MSE/MTR Theory	MSE/MTR Prac.	ESE/ESVE Theory	ESE/ESVE Prac.	Total Marks	Credits
1	BM105111BM	Microcontrollers	3	1	0	20	30		50		100	4
2	BM105112BM	Medical Imaging	3	1	0	20	30		50		100	4
3	BM105113BM	Biomedical Equipments	3	1	0	20	30		50		100	4
4	BM105521XBM	Program Elective I	3	0	0	20	30		50		100	3
5	BM10531YBM	Open Elective I	3	0	0	20	30		50		100	3
6	BM105405BM	Microprocessor and Microcontroller Lab	0	0	2	40		20		40	100	1
7	BM105406BM	Biomedical Equipments Lab	0	0	2	40		20		40	100	1
8	BM105701BM	Summer Internship I										1
												21

National Institute of Technology Raipur
Course of Study and Scheme of Examination — B. Tech. 6th Semester — Biomedical Engg.

S. No.	Subject Code	Subject Name	L	T	P	TA	MSE/MTR Theory	MSE/MTR Prac.	ESE/ESVE Theory	ESE/ESVE Prac.	Total Marks	Credits
1	BM106114BM	Biomaterials	3	1	0	20	30		50		100	4
2	BM106115BM	Microelectronics and Integrated Circuits	3	1	0	20	30		50		100	4
3	BM106116BM	Telemedicine	3	1	0	20	30		50		100	4
4	BM106622XBM	Program Elective II	3	0	0	20	30		50		100	3
5	BM106632YBM	Open Elective II	3	0	0	20	30		50		100	3
6	BM106407BM	Biomaterials Lab	0	0	2	40		20		40	100	1
7	BM106408BM	Microelectronics and Integrated Circuits Lab	0	0	2	40		20		40	100	1
												20

National Institute of Technology Raipur
Course of Study and Scheme of Examination — B. Tech. 7th Semester — Biomedical Engg.

S. No.	Subject Code	Subject Name	L	T	P	TA	MSE/MTR Theory	MSE/MTR Prac.	ESE/ESVE Theory	ESE/ESVE Prac.	Total Marks	Credits
1	BM107117BM	Tissue Engineering	3	1	0	20	30		50		100	4
2	BM107723XBM	Program Elective III	3	0	0	20	30		50		100	3
3	BM107724XBM	Program Elective IV	3	0	0	20	30		50		100	3
4	BM107733YBM	Open Elective III	3	0	0	20	30		50		100	3
5	BM107501BM	Project Work	0	0	8	40		20		40	100	4
6	BM107409BM	Tissue Engineering Lab	0	0	2	40		20		40	100	1
7	BM107702BM	Summer Internship II										2
												20

National Institute of Technology Raipur
Course of Study and Scheme of Examination — B. Tech. 8th Semester — Biomedical Engg.

S. No.	Subject Code	Subject Name	L	T	P	TA	MSE/MTR Theory	MSE/MTR Prac.	ESE/ESVE Theory	ESE/ESVE Prac.	Total Marks	Credits
1	BM10825XBM	Program Elective V	3	0	0	20	30		50		100	3
2	BM10826XBM	Program Elective VI	3	0	0	20	30		50		100	3
3	BM10834YBM	Open Elective IV	3	0	0	20	30		50		100	3
4	BM10835YBM	Open Elective V	3	0	0	20	30		50		100	3
												12

Eight Semester for Students undergoing Major Internship

National Institute of Technology Raipur
Course of Study and Scheme of Examination — B. Tech. 8th Semester — Biomedical Engg.

S. No.	Subject Code	Subject Name	L	T	P	TA	MSE/MTR Theory	MSE/MTR Prac.	ESE/ESVE Theory	ESE/ESVE Prac.	Total Marks	Credits
1	BM10834YBM	Open Elective IV	3	0	0	20	30		50		100	3
2	BM10835YBM	Open Elective V	3	0	0	20	30		50		100	3
3	BM108703BM	Major Internship										6
												12

List of Programme Elective I
BM105211BM	Physiological Systems and Modeling
BM105212BM	Artificial Intelligence
BM105213BM	Flexible Elective as per Industry/Academic need

List of Open Electives I
BM105311BM	Analytical and Diagnostic Medical Equipments
BM105312BM	Computational Biomechanics

List of Programme Elective II
BM106221BM	Sports Biomechanics
BM106222BM	Principles of Communication
BM106223BM	Database Management System

List of Open Electives II
BM106321BM	Advanced Biosignal Processing
BM106322BM	Biomicrofluidics

List of Programme Elective III
BM107231BM	Rehabilitation Engineering
BM107232BM	Medical Image Processing
BM107233BM	Flexible Elective as per Industry/Academic need

List of Program Electives IV
BM107241BM	Biochemistry
BM107242BM	Basic Clinical Science

List of Open Electives III
BM107331BM	Lab-on-chip Devices
BM107332BM	Biophotonics
BM107333BM	Biostatics

List of Programme Elective V
BM108251BM	Artificial Organs
BM108252BM	Embedded and Real time systems
BM108253BM	Patient and Device Safety

List of Program Electives VI
BM108261BM	Bioinformatics
BM108262BM	BioMEMS
BM108263BM	Optical Fiber and Laser in Medicine

List of Open Electives IV
BM108341BM	Biofluid Dynamics
BM108342BM	Drug delivery Systems

List of Open Electives V
BM108351BM	3D Printing Technology
BM108352BM	Healthcare Management