

NATIONAL INSTITUTE OF TECHNOLOGY SIKKIM

RAVANGLA CAMPUS

BIOTECHNOLOGY CURRICULUM 2015 - 19

3RD TO 8TH SEMESTER CORE COURSES

Semester II						
No.	Code	Course	L	T	P	C
1	BT1001	Introduction to Life Sciences	2	0	0	2
Total credit			2	0	0	2

Semester III						
No.	Code	Course	L	T	P	C
1	MA2001	Mathematics - III	3	1	0	3
2	BT2001	Advance Chemistry for Biotechnology	3	0	0	3
3	BT2002	Microbiology	3	0	0	3
4	BT2003	Biochemistry	3	1	0	3
5	BT2004	Thermodynamics in Biology	3	0	0	3
6	BT2005	Fluid Mechanics	3	0	0	3
7	BT2091	Microbiology Laboratory	0	0	3	2
8	BT2092	Biochemistry Laboratory	0	0	3	2
Total credit			18	2	6	22

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Semester IV						
No.	Code	Course	L	T	P	C
1	MA2002	Mathematics-IV	3	1	0	3
2	BT2007	Process Calculation	3	0	0	3
3	BT2008	Bioprocess Principles	3	0	0	3
4	BT2009	Cell Biology	3	0	0	3
5	BT2010	Molecular Biology	3	0	0	3
6	BT2011	Biostatistics	3	0	0	3
7	BT2012	Immunotechnology	3	0	0	3
8	BT2093	Bioprocess Laboratory	0	0	3	2
9	BT2094	Molecular Biology Laboratory	0	0	3	2
Total credit			21	1	6	25

Semester V						
No.	Code	Course	L	T	P	C
1	BT3013	Principle of Heat Transfer	3	0	0	3
2	BT3014	Bioreactor Design and Analysis	3	0	0	3
3	BT3015	Downstream Processing	3	0	0	3
4	BT3016	Instrumental Method and Analysis for Biotechnology	3	0	0	3
5	BT3017	Genetic Engineering	3	0	0	3
6	BT3018	Environmental Studies (Audit)	3	0	0	0
7	BT3095	Immunotechnology Laboratory	0	0	3	2
8	BT3096	Downstream Processing Laboratory	0	0	3	2
Total credit			18	0	6	19

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Semester VI						
No.	Code	Course	L	T	P	C
1	BT3019	Bioinformatics	3	0	0	3
2	BT3020	Systems Biology	3	0	0	3
3	BT3021	Enzyme Kinetics & Technology	3	0	0	3
4	BT3022	Environmental Biotechnology	3	0	0	3
5	BT3023U	Elective - I	3	0	0	3
6	BT3097	Enzyme Technology Laboratory	0	0	3	2
7	BT3098	Bioinformatics Laboratory	0	0	3	2
Total credit			15	0	6	19

Semester VII						
No.	Code	Course	L	T	P	C
1	ME4104	Principle of Management & Entrepreneurship	3	0	0	3
2	BT4024	Ethics and Regulatory Issue in Biotechnology	2	0	0	2
3	BT4025	Structural Biology	3	0	0	3
4	BT4026V	Elective - II	3	0	0	3
5	BT4027W	Elective - III	3	0	0	3
6	BT4099	Project Phase - I	0	0	6	3
Total credit			14	0	6	17

Semester VIII						
No.	Code	Course	L	T	P	C
1	MS4003	Principle of Economics	3	0	0	3
2	BT4028X	Elective - IV	3	0	0	3
3	BT4029Y	Elective - V	3	0	0	3
4	BT4030Z	Elective - VI	3	0	0	3
5	BT4091	Project Phase - II	0	0	10	5
6	BT4092	Seminar	0	0	2	1

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Total credit	12	0	12	18
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