

THE UNIVERSITY OF KALYANI
DRAFT Curricular
Framework and Credit
System for the Four-Year
Undergraduate Programme
SYLLABUS
IN
MICROBIOLOGY (Major)

A. Number of courses:

Types of course	Major	Minor	Multi-disciplinary course	Ability Enhancement course	Skill Enhancement course	Value added course	Summer course	Research Project (For Honours with Research)	Total
No. of course	16+2 (Not required for Honours with research)	6	3	2	3	2	2	1	34+2+1
Credit/courses	6/4	4	3	4	3	4	4	12	170

TABLE-1: SEMESTERWISE DISTRIBUTION OF CURRICULUM & CREDITS IN B.SC. HONS in Microbiology

Courses/ (Credits)	Sem-I	Sem-II	Sem-III	Sem-IV	Sem-V	Sem-VI	Sem-VII	Sem-VIII	Total No. of Courses	Total Credit
MAJOR (6/4)	1	1	1	2	2	3	3	3+2	18	102+2
MINOR (4)	1	1	1	1	2	--	2	--	8	32
MDC (3)	1	1	1	--	--	--	--	--	3	09
AEC (4)	--	1	--	1	--	--	--	--	2	08
SEC (3)	1	1	1	--	--	--	--	--	3	09
VAC (4)	1	--	1	--	--	--	--	--	2	08
SC (4)	--	1	--	1	--	--	--	--	2	Certificate/ Diploma
RP (12)	--	--	--	--	--	--	--	1	1	Honours with Research
Total No. of Course/ Sem.	5	5	5	4	4	3+Internship(2 credit)	5	5	36	--
Total Credit /Semester	20	20	20	20	20	20	26	24	--	170

SEMESTER-I			
Course Code	Course Title	Course wiseClass (L+P)	Credit
MB-M-T-01	INTRODUCTION TO THE WORLD OF MICROBES	60	4
MB-M-P-01		60	2
MB-SEC-T-01	FOOD FERMENTATION TECHNIQUES	45	3
MINOR-I		45 15	3 1
MDC		45	3
VAC	ENVIRONMENTAL EDUCATION	60	4
Total	5 courses	330	20
SEMESTER-II			
Course Code	Course Title	Course wiseClass	Credit
MB-M-T-02	MICROBIAT SOCIETY: DIVERSITY AND SYSTEMATICS	60	4
MB-M-P-02		60	2
MB-SEC-T-02	BIOSAFETY AND INTETLLECTUAL PROPERTY RIGHTS	45	3
MINOR-II		45 15	3 1
MDC		45	3
AECC	COMMUNICATIVE ENGLISH	60	4
INTERNSHIP	FOR CERTIFICATE/DIPLOMA ONLY		4
Total	5 courses	330	20
SEMESTER-III			
Course Code	Course Title	Course wiseClass	Credit
MB-M-T-03	MICROBES AND ENVIRONMENT	60	4
MB-M-P-03		60	2
MB-SEC-T-03	MICROBES IN SUSTAINABLE AGRICULTURE AND DEVELOPMENT	45	3
MINOR-I		45 15	3 1
MDC		45	3
VAC	ENVIRONMENTAL EDUCATION	60	4
Total	5 courses	330	20
SEMESTER-IV			
Course Code	Course Title	Course wiseClass	Credit
MB-H-M-T-04	MICROBIOLOGY IN DAILY LIFE: FOOD AND INDUSTRY	60	4
MB-M-P-04		60	2
MB-M-T-05	MICROBIAL ECOLOGY AND AGRICULTURAL MICROBIOLOGY	60	4
MB-M-P-05		60	2
MINOR-II		45 15	3 1
AECC	MIL	60	4
Total	4 courses	360	20
SEMESTER-V			
Course Code	Course Title	Course wiseClass	Credit
MB-M-T-06	FUNDAMENTAL OF LIFE PROCESS: WATER AND BIOMOLECULES	60	4
MB-M-P-06		60	2
MB-M-T-07	MICROBIAL GENETICS	60	4
MB-M-P-07		60	2
MINOR-I		45 15	3 1
MINOR-II		45 15	3 1
Total	5 courses	360	20
SEMESTER-VI			

Course Code	Course Title	Course wiseClass	Credit
MB-M-T-08	IMMUNOLOGY: HOST DEFENSE VERSUS PATHOGEN	60	4
MB-M-P-08		60	2
MB-M-T-09	PUBLIC HEALTH AND MEDICAL MICROBIOLOGY	60	4
MB-M-P-09		60	2
MB-M-T-10	MOLECULAR BIOLOGY	60	4
MB-M-P-10		60	2
OUTREACH/INTERNSHIP			2
Total	5 courses	360	20
SEMESTER-VII			
Course Code	Course Title	Course wiseClass	Credit
MB-M-T-11	RECOMBINANT DNA TECHNOLOGY	60	4
MB-M-P-11		60	2
MB-M-T-12	BIOENERGETICS AND MICROBIAL METABOLISM	60	4
MB-M-P-12		60	2
MB-M-T-13	INSTRUMENTATION AND BIOTECHNIQUES	60	4
MB-M-P-13		60	2
MINOR-I		45 15	3 1
MINOR-II		45 15	3 1
Total	5 courses	480	26
SEMESTER-VIII			
Course Code	Course Title	Course wiseClass	Credit
MB-M-T-14	FUNDAMENTALS OF CELL BIOLOGY	60	4
MB-M-P-14			
MB-M-T-15	BIOSTATISTICS	60	4
MB-M-P-15			
MB-M-T-16	ISOLATION OF MICROBES FROM ENVIRONMENT: AIR, WATER, SOIL (PRACTICAL ONLY)	60	4
MB-M-P-16			
MB-M-T-17 (FOR HONOURS ONLY)	VIROLOGY	60	4
		60	2
MB-M-P-18 (FOR HONOURS ONLY)	MICROBIAL BIOTECHNOLOGY	60	4
		60	2
RESEARCH PROJECT /DISSERTATION (FOR HONOURS WITH RESEARCH ONLY)			12
Total	5 courses	480	24





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