

DESHABANDHU MAHAVIDYALAYA, CHITTARANJAN

DEPARTMENT OF CHEMISTRY

Curriculum

(with effect from Academic Session 2023-24)

KAZI NAZRUL UNIVERSITY				FACULTY OF SCIENCE, TECHNOLOGY & VOCATIONAL STUDIES		3-Year UG Degree /4-Year UG Degree (Honours) / 4-Year UG Degree (Honours with Research)			WITH EFFECT FROM THE ACADEMIC SESSION: 2023-24									
Abbreviated Degree	Discipline	Degree Programme	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks		
											Practical	Theoretical	Practical	Theoretical				
BSC	Chemistry	3-year UG Degree	I	General Chemistry - I	MAJOR	BSCCEMMJ101	MJC-1	3 - 0 - 4	5	20	30	15	20	35	100	350		
				Choose from the Pool of Minor Courses offered in 1st Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-1	See Pool	5		See Pool				100			
				Choose from the Pool of Multidisciplinary Courses offered in 1st Semester across the faculties	MD	See Pool	MDC-1	2 - 1 - 0	3			15		35	50			
				English/MIL Communication	AE	See Pool	AEC-1	4 - 0 - 0	4			15		35	50			
				Industrial Chemistry	SE	BSCCEMSE101	SEC-1	2 - 1 - 0	3			15		35	50			
			II	General Chemistry - II	MAJOR	BSCCEMMJ201	MJC-2	3 - 0 - 4	5	20	30	15	20	35	100	350		
				Choose from the Pool of Minor Courses offered in 2nd Semester by other Disciplines within the faculty	MINOR	Corresponding Course Code of Minor opted in 1st Semester	MNC-2	See Pool	5		See Pool				100			
				Choose from the Pool of Multidisciplinary Courses offered in 2nd Semester across the faculties	MD	See Pool	MDC-2	2 - 1 - 0	3			15		35	50			
				Environment Studies	VA	VA201	VAC-1	4 - 0 - 0	4			15		35	50			
				Pharmaceutical Chemistry	SE	BSCCEMSE201	SEC-2	2 - 1 - 0	3			15		35	50			
			Student exiting the programmes after securing 40 credits will be awarded UG Certificate in the relevant Discipline/Subject provided they secure following 4 credits in work based vocational courses / summer internship during 1st year															
			II	Vocational Course	Any One	VC	VC201	VCC-1	0 - 0 - 8	4	24	30		20		50	400	
				Summer Internship		SI	SI201	SIC-1										
			III	Inorganic Chemistry-I	MAJOR	BSCCEMMJ301	MJC-3	3 - 0 - 4	5	22	30	15	20	35	100	400		
				Physical Chemistry-I	MAJOR	BSCCEMMJ302	MJC-4	3 - 0 - 4	5		30	15	20	35	100			
				Choose from the Pool of Minor Courses offered in 3rd Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-3	See Pool	5		See Pool				100			
				Choose from the Pool of Multidisciplinary Courses offered in 3rd Semester across the faculties	MD	See Pool	MDC-3	2 - 1 - 0	3			15		35	50			
				English Communication	AE	See Pool	AEC-2	4 - 0 - 0	4			15		35	50			
			IV	Organic Chemistry-I	MAJOR	BSCCEMMJ401	MJC-5	3 - 0 - 4	5	22	30	15	20	35	100	400		
				Physical Chemistry-II	MAJOR	BSCCEMMJ402	MJC-6	3 - 0 - 4	5		30	15	20	35	100			
				Choose from the Pool of Minor Courses offered in 4th Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-4	See Pool	5		See Pool				100			
				Fuel Chemistry	SE	BSCCEMSE401	SEC-3	2 - 1 - 0	3			15		35	50			
				Choose from the Pool of Value Added Course offered in 4th Semester	VA	See Pool	VAC-2	See Pool	4			15		35	50			
			Student exiting the programmes after securing 84 credits will be awarded UG Diploma in the relevant Discipline/Subject provided they secure following 4 credits in work based vocational courses / summer internship during 2nd year															
			IV	Vocational Course	Any One	VC	VC401	VCD-1	0 - 0 - 8	4	26	30		20		50	450	
				Summer Internship		SI	SI401	SID-1										
			V	Inorganic Chemistry-II	MAJOR	BSCCEMMJ501	MJC-7	3 - 0 - 4	5	20	30	15	20	35	100	400		
				Organic Chemistry-II	MAJOR	BSCCEMMJ502	MJC-8	3 - 0 - 4	5		30	15	20	35	100			
				Physical Chemistry-III	MAJOR	BSCCEMMJ503	MJC-9	3 - 0 - 4	5		30	15	20	35	100			
				Choose from the Pool of Minor Courses offered in 5th Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-5	See Pool	5		See Pool				100			

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Economics	I	Any	Money and Banking	MDC-1	MDC111	2 - 1 - 0	3	NA	15	35	50	NA	
Hindi			Patrakarita		MDC112								
Mathematics			Business Mathematics		MDC113								
Sociology			Indian Society		MDC114								
Philosophy			Yoga for Daily Life		MDC115								
Electronics			Electronic Measurements		MDC116								
Computer Science			Information and Communication Technology		MDC117								
Botany			Introduction to Local Flora		MDC118								
Computer Applications			Information and Media Literacy		MDC119								
Commerce			Personal Finance		MDC120								
Mathematics	II	Any One	Mathematical Science	MD	MDC201	MDC-2	2 - 1 - 0	3	NA	15	35	50	NA
BBA			Business Environment		MDC202								
Statistics			Basic Statistics		MDC203								
History			Understanding Medieval Bengal Select Themes: 1206 CE-1727 CE		MDC204								
Commerce			Personal Finance		MDC205								
Nutrition			Nutrition and Public Health		MDC206								
Education			Educational Philosophy		MDC207								
Psychology			Stress Management		MDC208								
Computer			Social Media and Cyber Awareness		MDC209								
Bengali			Adhunik Bangla Sahitya		MDC210								
Nazrul Sangeet			Nazrul Sangeet		MDC211								
Electronics			E-Waste Management		MDC212								
Chemistry			Chemical Science		MDC213								
Sanskrit			Critical Survey of Sanskrit Language		MDC214								
Urdu			Asnaf- E -Adab		MDC215								
Hindi			Anuvad Vigyan		MDC216								
Botany			Herbal Home Remedies		MDC217								
Geography	III	Any One	Bharatavarsha—A Land of Rare Natural Endowments	MD	MDC301	MDC-3	2 - 1 - 0	3	NA	15	35	50	NA
Sanskrit			The Vedangas and other Streams of Indian Knowledge System		MDC302								
Physics			Indian Astronomy		MDC303								
Zoology			Indian Health Sciences		MDC304								
Mathematics			Indian Mathematics		MDC305								
Education			Indian Education		MDC306								
Political Sc			Indian Polity and Economy		MDC307								
Philosophy			Methodology of Indian Knowledge System		MDC308								

DESHABANDHU MAHAVIDYALAYA, CHITTARANJAN

DEPARTMENT OF CHEMISTRY

Curriculum

(with effect from Academic Session 2022-23)

KAZI NAZRUL UNIVERSITY				FACULTY OF SCIENCE		DEGREE PROGRAMME: B.Sc. HONOURS IN CHEMISTRY				WITH EFFECT FROM THE ACADEMIC SESSION: 2022-23									
Abbreviated Degree	Discipline	Abbreviated Degree Programme	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks			
BSCH	CHEMISTRY	BSCHCEM	I	Inorganic Chemistry -I	C	BSCHCEMC101	CC-1	5 - 1 - 0	6	22		15		35	50	150 + Marks of GEC			
				Organic Chemistry - I		BSCHCEMC102	CC-2	5 - 1 - 0	6			15		35	50				
				Choose from the Pool of Generic Elective Courses offered in 1st Semester by Honours Disciplines other than the Discipline in which Honours course is taken				GE	See Pool		GEC-1	See Pool	6	See Pool					
				Environment Studies				AE	AEE101		AECC-1	4 - 0 - 0	4		15			35	50
			II	Physical Chemistry - I	C	BSCHCEMC201	CC-3	4 - 0 - 4	6	22	30	15	20	35	100	250 + Marks of GEC			
				Organic Chemistry - II		BSCHCEMC202	CC-4	4 - 0 - 4	6		30	15	20	35	100				
				Choose from the Pool of Generic Elective Courses offered in 2nd Semester by Honours Disciplines other than the Discipline in which Honours course is taken				GE	See Pool		GEC-2	See Pool	6	See Pool					
				English/MIL Communication				AE	See Pool		AECC-2	4 - 0 - 0	4		15			35	50
			III	Inorganic Chemistry - II	C	BSCHCEMC301	CC-5	4 - 0 - 4	6	28	30	15	20	35	100	350 + Marks of GEC			
				Organic Chemistry - III		BSCHCEMC302	CC-6	4 - 0 - 4	6		30	15	20	35	100				
				Physical Chemistry - II		BSCHCEMC303	CC-7	4 - 0 - 4	6		30	15	20	35	100				
				Choose from the Pool of Generic Elective Courses offered in 3rd Semester by Honours Disciplines other than the Discipline in which Honours course is taken				GE	See Pool		GEC- 3	See Pool	6	See Pool					
				Industrial Chemistry	SE	BSCHCEMSE301	SEC-1	4 - 0 - 0	4			15		35	50				
				Pharmaceutical Chemistry		BSCHCEMSE302	4 - 0 - 0		15			35							
			IV	Inorganic Chemistry - III	C	BSCHCEMC401	CC-8	4 - 0 - 4	6	28	30	15	20	35	100	350 + Marks of GEC			
				Organic Chemistry - IV		BSCHCEMC402	CC-9	4 - 0 - 4	6		30	15	20	35	100				
				Physical Chemistry - III		BSCHCEMC403	CC-10	4 - 0 - 4	6		30	15	20	35	100				
				Choose from the Pool of Generic Elective Courses offered in 4th Semester by Honours Disciplines other than the Discipline in which Honours course is taken				GE	See Pool		GEC- 4	See Pool	6	See Pool					
				Chemistry of Cosmetics & Perfumes	SE	BSCHCEMSE401	SEC-2	4 - 0 - 0	4			15		35	50				
				Fuel Chemistry		BSCHCEMSE402	4 - 0 - 0		15			35							
			V	Organic Chemistry - V	C	BSCHCEMC501	CC-11	4 - 0 - 4	6	24	30	15	20	35	100	300			
				Inorganic Chemistry - IV		BSCHCEMC502	CC-12	4 - 0 - 4	6		30	15	20	35	100				
				Green Chemistry	(Any Two)	DSE	BSCHCEMDSE501	DSEC-1 & DSEC-2	5 - 1 - 0		6 X 2			15			35	50 X 2	
				Environmental Chemistry		BSCHCEMDSE502	5 - 1 - 0						15		35				
				Solid State Chemistry		BSCHCEMDSE503	5 - 1 - 0						15		35				
			VI	Inorganic Chemistry - V	C	BSCHCEMC601	CC-13	4 - 0 - 4	6	24	30	15	20	35	100	300			
				Physical Chemistry - IV		BSCHCEMC602	CC-14	4 - 0 - 4	6		30	15	20	35	100				
				Chemistry of Nanomaterials	(Any Two)	DSE	BSCHCEMDSE601	DSEC-3 & DSEC-4	5 - 1 - 0		6 X 2			15			35	50 X 2	
				Dynamic Stereochemistry		BSCHCEMDSE602	5 - 1 - 0						15		35				
				Quantum Chemistry & Spectroscopy		BSCHCEMDSE603	5 - 1 - 0						15		35				
			Total Credit and Marks										148	1700 + Marks of GEC					
Abbreviations: C= Core; CC=Core Course; AE= Ability Enhancement; AECC= Ability Enhancement Compulsory Course; GE= Generic Elective; GEC= Generic Elective Course; SE= Skill Enhancement; SEC= Skill Enhancement Course; DSE= Discipline Specific Elective; DSEC= Discipline Specific Elective Course; CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T= Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable																			
Generic Elective Courses (GEC) : Students of a particular Honours Course will choose from the Pool of Generic Elective Courses offered by Disciplines other than the Discipline in which Honours course is taken																			
Semesterwise Pool of Generic Elective Courses offered by this Discipline																			
	Discipline	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks			
CHEMISTRY		I	Basics in Organic and Inorganic Chemistry		GE	BSCHCEMGE101	GEC-1	5 - 1 - 0	6	NA		15		35	50	NA			
		II	Elementary Physical Chemistry & Organic Chemistry			BSCHCEMGE201	GEC-2	4 - 0 - 4	6			30	15	20	35		100		
		III	Physical Chemistry & Inorganic Chemistry			BSCHCEMGE301	GEC-3	4 - 0 - 4	6			30	15	20	35		100		
		IV	Inorganic Chemistry & Organic Chemistry			BSCHCEMGE401	GEC-4	4 - 0 - 4	6			30	15	20	35		100		
Pool of Communication Courses offered as Ability Enhancement Compulsory Courses																			
	Discipline	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks			
English/MIL Communication		II	English Communication	(Any One)	AE	AECCE201	AECC-2	4 - 0 - 0	4	NA		15		35	50	NA			
			Bengali Communication			AECGB201		4 - 0 - 0				15		35					
			Hindi Communication			AECHH201		4 - 0 - 0				15		35					
			Urdu Communication			AECUU201		4 - 0 - 0				15		35					

KAZI NAZRUL UNIVERSITY			FACULTY OF SCIENCE		DEGREE PROGRAMME: B.Sc. PROGRAM IN CHEMISTRY			WITH EFFECT FROM THE ACADEMIC SESSION: 2022-23									
Abbreviated Degree	Discipline	Abbreviated Degree Programme	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks	
											Practical	Theoretical	Practical	Theoretical			
BSCP	CHEMISTRY	BSCPCEM	I	Basics in Organic & Inorganic Chemistry	C	BSCPCEMC101	CC-1(1)	5 - 1 - 0	6	22	See Pool	15	20	35	50	100 + Marks of Disc.2 & Disc.3	
				Discipline 2: CC-1(1) of Other Discipline		CC-2(1)	4 - 0 - 4	6									
				Discipline 3: CC-1(1) of Other Discipline		CC-3(1)	4 - 0 - 4	6									
				Environment Studies	AE	AEE101	AEEC-1	4 - 0 - 0	4	15	35	50					
			II	Elementary Physical Chemistry & Organic Chemistry	C	BSCPCEMC201	CC-1(2)	4 - 0 - 4	6	22	See Pool	15	20	35	100	150 + Marks of Disc.2 & Disc.3	
				Discipline 2: CC-1(2) of Other Discipline		CC-2(2)	4 - 0 - 4	6									
				Discipline 3: CC-1(2) of Other Discipline		CC-3(2)	4 - 0 - 4	6									
				English/MIL Communication	AE	See Pool	AEEC-2	4 - 0 - 0	4	15	35	50					
			III	Physical Chemistry & Inorganic Chemistry	C	BSCPCEMC301	CC-1(3)	4 - 0 - 4	6	22	See Pool	15	20	35	100	150 + Marks of Disc.2 & Disc.3	
				Discipline 2: CC-1(3) of Other Discipline		CC-2(3)	4 - 0 - 4	6									
				Discipline 3: CC-1(3) of Other Discipline		CC-3(3)	4 - 0 - 4	6									
				Industrial Chemistry	SE	BSCPCEMSE301	SEC-1	4 - 0 - 0	4	15	35	50					
			IV	Inorganic Chemistry & Organic Chemistry	C	BSCPCEMC401	CC-1(4)	4 - 0 - 4	6	22	See Pool	15	20	35	100	150 + Marks of Disc.2 & Disc.3	
				Discipline 2: CC-1(4) of Other Discipline		CC-2(4)	4 - 0 - 4	6									
				Discipline 3: CC-1(4) of Other Discipline		CC-3(4)	4 - 0 - 4	6									
				Chemistry of Cosmetics & Perfumes	SE	BSCPCEMSE401	SEC-2	4 - 0 - 0	4	15	35	50					
			V	Applied Chemistry	(Any One)	DSE	BSCPCEMDSE501	DSEC-1(1)	5 - 1 - 0	6	22	See Pool	15	20	35	50	100 + Marks of DSEC
				Quantum Chemistry, Spectroscopy & Photochemistry			DSEC-2(1)		5 - 1 - 0	6							
				Discipline 2: DSE-1(1) of Other Discipline			See Pool		DSEC-3(1)	4 - 0 - 0							
				Discipline 3: DSE-1(1) of Other Discipline	SE	BSCPCEMSE501	SEC-3	4 - 0 - 0	4	15	35	50					
			VI	Chemistry of Bio-molecules & Chemotherapy	(Any One)	DSE	BSCPCEMDSE601	DSEC-1(2)	5 - 1 - 0	6	22	See Pool	15	20	35	50	100 + Marks of DSEC
				Advanced Inorganic Chemistry			BSCPCEMDSE602		5 - 1 - 0	6							
				Discipline 2: DSE-1(2) of Other Discipline			See Pool		DSEC-2(2)	4 - 0 - 4							
				Discipline 3: DSE-1(2) of Other Discipline	SE	BSCPCEMSE601	SEC-4	4 - 0 - 0	4	15	35	50					
Total Credit and Marks				132						750 + Marks of Disc.2 & Disc.3 + Marks of DSEC							
Abbreviations: C= Core; CC=Core Course; AE= Ability Enhancement; AECC= Ability Enhancement Compulsory Course; GE= Generic Elective; GEC= Generic Elective Course; SE= Skill Enhancement; SEC= Skill Enhancement Course; DSE= Discipline Specific Elective; DSEC= Discipline Specific Elective Course; CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T= Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable																	
Discipline-2: Students of a particular Program Course will choose Discipline-2 of any other Discipline except of his/her own. For example, if a student opts for Program Course in Chemistry then that student is required to opt Discipline-2 from Program Courses other than Chemistry. Once Discipline-2 is chosen in the 1st Semester the student is to continue with the same in the remaining semesters.																	
Discipline-3: Students of a particular Program Course will choose Discipline-3 of any other Discipline except Discipline 1 and Discipline 2 already chosen. Once Discipline-3 is chosen in the 1st Semester the student is to continue with the same in the remaining semesters.																	
Semesterwise Pool of Core Courses offered by this Discipline (when treated as Discipline 2 for other Program Courses across the faculties as far as practicable)																	
Discipline-2	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks			
CHEMISTRY	I	Basics in Organic and Inorganic Chemistry	C	BSCPCEMC101	CC-2(1)	5 - 1 - 0	6	NA	15	20	35	50	NA				
	II	Elementary Physical Chemistry & Organic Chemistry		BSCPCEMC201	CC-3(2)	4 - 0 - 4	6		30	15	20	35		100			
	III	Physical Chemistry & Inorganic Chemistry		BSCPCEMC301	CC-2(3)	4 - 0 - 4	6		30	15	20	35		100			
	IV	Inorganic Chemistry & Organic Chemistry		BSCPCEMC401	CC-2(4)	4 - 0 - 4	6		30	15	20	35		100			
Semesterwise Pool of Core Courses offered by this Discipline (when treated as Discipline 3 for other Program Courses across the faculties as far as practicable)																	
Discipline-3	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks			
CHEMISTRY	I	Basics in Organic and Inorganic Chemistry	C	BSCPCEMC101	CC-3(1)	5 - 1 - 0	6	NA	15	20	35	50	NA				
	II	Elementary Physical Chemistry & Organic Chemistry		BSCPCEMC201	CC-3(2)	4 - 0 - 4	6		30	15	20	35		100			
	III	Physical Chemistry & Inorganic Chemistry		BSCPCEMC301	CC-3(3)	4 - 0 - 4	6		30	15	20	35		100			
	IV	Inorganic Chemistry & Organic Chemistry		BSCPCEMC401	CC-3(4)	4 - 0 - 4	6		30	15	20	35		100			

Discipline Specific Elective Course (DSEC) -2: Students of a particular Program Course will choose DSEC-2 from DSEC-1 of Discipline 2.															
Discipline Specific Elective Course (DSEC) -3: Students of a particular Program Course will choose DSEC-3 from DSEC-1 of Discipline 3.															
Semesterwise Pool of Discipline Specific Elective Courses (DSEC) offered by this Discipline (when treated as Discipline 2 for other Program Courses across the faculties as far as practicable)															
Discipline-2	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks
										Practical	Theoretical	Practical	Theoretical		
CHEMISTRY	V	Applied Chemistry	(Any One)	DSE	BSCPCEMDSE501	DSEC-2(1)	5 - 1 - 0	6	NA		15		35	50	NA
		Quantum Chemistry, Spectroscopy & Photochemistry			BSCPCEMDSE502		5 - 1 - 0				15		35		
	VI	Chemistry of Bio-molecules & Chemotherapy	(Any One)		BSCPCEMDSE601	DSEC-2(2)	5 - 1 - 0	6			15		35	50	
		Advanced Inorganic Chemistry			BSCPCEMDSE602		5 - 1 - 0				15		35		
Semesterwise Pool of Discipline Specific Elective Courses (DSEC) offered by this Discipline (when treated as Discipline 3 for other Program Courses across the faculties as far as practicable)															
Discipline-3	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks
										Practical	Theoretical	Practical	Theoretical		
CHEMISTRY	V	Applied Chemistry	(Any One)	DSE	BSCPCEMDSE501	DSEC-3(1)	5 - 1 - 0	6	NA		15		35	50	NA
		Quantum Chemistry, Spectroscopy & Photochemistry			BSCPCEMDSE502		5 - 1 - 0				15		35		
	VI	Chemistry of Bio-molecules & Chemotherapy	(Any One)		BSCPCEMDSE601	DSEC-3(2)	5 - 1 - 0	6			15		35	50	
		Advanced Inorganic Chemistry			BSCPCEMDSE602		5 - 1 - 0				15		35		
Pool of Communication Courses offered as Ability Enhancement Compulsory Courses															
Discipline	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks
										Practical	Theoretical	Practical	Theoretical		
English/MIL Communication	II	English Communication	(Any One)	AE	AECCE201	AECC-2	4 - 0 - 0	4	NA		15		35	50	NA
		Bengali Communication			AECCEB201		4 - 0 - 0				15		35		
		Hindi Communication			AECCH201		4 - 0 - 0				15		35		
		Urdu Communication			AECU201		4 - 0 - 0				15		35		

DESHABANDHU MAHAVIDYALAYA, CHITTARANJAN

DEPARTMENT OF CHEMISTRY

Curriculum

(with effect from Academic Session 2020-21)

KAZI NAZRUL UNIVERSITY				FACULTY OF SCIENCE		DEGREE PROGRAMME: B.Sc. HONOURS IN CHEMISTRY				WITH EFFECT FROM THE ACADEMIC SESSION: 2020-21									
Abbreviated Degree	Discipline	Abbreviated Degree Programme	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks		
BSCH	CHEMISTRY	BSCHCEM	I	Inorganic Chemistry -I	C	BSCHCEMC101	CC-1	5 - 1 - 0	6	22		10		40	50	150 + Marks of GEC			
				Organic Chemistry - I		BSCHCEMC102	CC-2	5 - 1 - 0	6			10		40	50				
				Choose from the Pool of Generic Elective Courses offered in 1st Semester by Honours Disciplines other than the Discipline in which Honours course is taken		GE	See Pool	GEC-1	See Pool		6	See Pool							
				Environment Studies		AE	AEE101	AECC-1	4 - 0 - 0		4		10		40		50		
			II	Physical Chemistry - I	C	BSCHCEMC201	CC-3	4 - 0 - 4	6	22	30	10	20	40	100	250 + Marks of GEC			
				Organic Chemistry - II		BSCHCEMC202	CC-4	4 - 0 - 4	6		30	10	20	40	100				
				Choose from the Pool of Generic Elective Courses offered in 2nd Semester by Honours Disciplines other than the Discipline in which Honours course is taken		GE	See Pool	GEC-2	See Pool		6	See Pool							
				English/MIL Communication		AE	See Pool	AECC-2	4 - 0 - 0		4		10		40		50		
			III	Inorganic Chemistry - II	C	BSCHCEMC301	CC-5	4 - 0 - 4	6	28	30	10	20	40	100	350 + Marks of GEC			
				Organic Chemistry - III		BSCHCEMC302	CC-6	4 - 0 - 4	6		30	10	20	40	100				
				Physical Chemistry - II		BSCHCEMC303	CC-7	4 - 0 - 4	6		30	10	20	40	100				
				Choose from the Pool of Generic Elective Courses offered in 3rd Semester by Honours Disciplines other than the Discipline in which Honours course is taken		GE	See Pool	GEC- 3	See Pool		6	See Pool							
				Industrial Chemistry	SE	BSCHCEMSE301	SEC-1	4 - 0 - 0	4			10		40	50				
				Pharmaceutical Chemistry		BSCHCEMSE302		4 - 0 - 0				10		40					
			IV	Inorganic Chemistry - III	C	BSCHCEMC401	CC-8	4 - 0 - 4	6	28	30	10	20	40	100	350 + Marks of GEC			
				Organic Chemistry - IV		BSCHCEMC402	CC-9	4 - 0 - 4	6		30	10	20	40	100				
				Physical Chemistry - III		BSCHCEMC403	CC-10	4 - 0 - 4	6		30	10	20	40	100				
				Choose from the Pool of Generic Elective Courses offered in 4th Semester by Honours Disciplines other than the Discipline in which Honours course is taken		GE	See Pool	GEC- 4	See Pool		6	See Pool							
				Chemistry of Cosmetics & Perfumes	SE	BSCHCEMSE401	SEC-2	4 - 0 - 0	4			10		40	50				
				Fuel Chemistry		BSCHCEMSE402		4 - 0 - 0				10		40					
			V	Organic Chemistry - V	C	BSCHCEMC501	CC-11	4 - 0 - 4	6	24	30	10	20	40	100	300			
				Inorganic Chemistry - IV		BSCHCEMC502	CC-12	4 - 0 - 4	6		30	10	20	40	100				
				Green Chemistry	(Any Two)	DSE	BSCHCEMDSE501	DSEC-1 & DSEC-2	5 - 1 - 0		6 X 2			10			40	50 X 2	
				Environmental Chemistry		BSCHCEMDSE502	5 - 1 - 0						10		40				
				Solid State Chemistry		BSCHCEMDSE503	5 - 1 - 0						10		40				
			VI	Inorganic Chemistry - V	C	BSCHCEMC601	CC-13	4 - 0 - 4	6	24	30	10	20	40	100	300			
				Physical Chemistry - IV		BSCHCEMC602	CC-14	4 - 0 - 4	6		30	10	20	40	100				
				Chemistry of Nanomaterials	(Any Two)	DSE	BSCHCEMDSE601	DSEC-3 & DSEC-4	5 - 1 - 0		6 X 2			10			40	50 X 2	
				Dynamic Stereochemistry		BSCHCEMDSE602	5 - 1 - 0						10		40				
				Quantum Chemistry & Spectroscopy		BSCHCEMDSE603	5 - 1 - 0						10		40				
			Total Credit and Marks										148	1700 + Marks of GEC					
Abbreviations: C= Core; CC=Core Course; AE= Ability Enhancement; AECC= Ability Enhancement Compulsory Course; GE= Generic Elective; GEC= Generic Elective Course; SE= Skill Enhancement; SEC= Skill Enhancement Course; DSE= Discipline Specific Elective; DSEC= Discipline Specific Elective Course; CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T= Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable																			
Generic Elective Courses (GEC) : Students of a particular Honours Course will choose from the Pool of Generic Elective Courses offered by Disciplines other than the Discipline in which Honours course is taken																			
Semesterwise Pool of Generic Elective Courses offered by this Discipline																			
	Discipline	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks			
CHEMISTRY		I	Basics in Organic and Inorganic Chemistry		GE	BSCHCEMGE101	GEC-1	5 - 1 - 0	6	NA		10		40	50	NA			
		II	Elementary Physical Chemistry & Organic Chemistry			BSCHCEMGE201	GEC-2	4 - 0 - 4	6		30	10	20	40	100				
		III	Physical Chemistry & Inorganic Chemistry			BSCHCEMGE301	GEC-3	4 - 0 - 4	6		30	10	20	40	100				
		IV	Inorganic Chemistry & Organic Chemistry			BSCHCEMGE401	GEC-4	4 - 0 - 4	6		30	10	20	40	100				
Pool of Communication Courses offered as Ability Enhancement Compulsory Courses																			
	Discipline	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks			
English/MIL Communication	II	English Communication	(Any One)	AE	AECCE201	AECC-2	4 - 0 - 0	4	NA		10		40	50	NA				
		Bengali Communication			AECB201		4 - 0 - 0				10		40						
		Hindi Communication			AECH201		4 - 0 - 0				10		40						
		Urdu Communication			AECU201		4 - 0 - 0				10		40						

KAZI NAZRUL UNIVERSITY			FACULTY OF SCIENCE		DEGREE PROGRAMME: B.Sc. PROGRAM IN CHEMISTRY			WITH EFFECT FROM THE ACADEMIC SESSION: 2020-21									
Abbreviated Degree	Discipline	Abbreviated Degree Programme	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks PracticalTheoretical		ESE Marks PracticalTheoretical		Total Marks	Sem Marks	
BSCP	CHEMISTRY	BSCPCEM	I	Basics in Organic & Inorganic Chemistry	C	BSCPCEMC101	CC-1(1)	5 - 1 - 0	6	22	30	10	20	40	50	100 + Marks of Disc.2 & Disc.3	
				Discipline 2: CC-1(1) of Other Discipline		See Pool	CC-2(1)	See Pool	6								
				Discipline 3: CC-1(1) of Other Discipline		See Pool	CC-3(1)	See Pool	6								
				Environment Studies	AE	AEE101	AEEC-1	4 - 0 - 0	4	10	40	50					
			II	Elementary Physical Chemistry & Organic Chemistry	C	BSCPCEMC201	CC-1(2)	4 - 0 - 4	6	22	30	10	20	40	100	150 + Marks of Disc.2 & Disc.3	
				Discipline 2: CC-1(2) of Other Discipline		See Pool	CC-2(2)	See Pool	6								
				Discipline 3: CC-1(2) of Other Discipline		See Pool	CC-3(2)	See Pool	6								
				English/MIL Communication	AE	See Pool	AEEC-2	4 - 0 - 0	4	10	40	50					
			III	Physical Chemistry & Inorganic Chemistry	C	BSCPCEMC301	CC-1(3)	4 - 0 - 4	6	22	30	10	20	40	100	150 + Marks of Disc.2 & Disc.3	
				Discipline 2: CC-1(3) of Other Discipline		See Pool	CC-2(3)	See Pool	6								
				Discipline 3: CC-1(3) of Other Discipline		See Pool	CC-3(3)	See Pool	6								
				Industrial Chemistry	SE	BSCPCEMSE301	SEC-1	4 - 0 - 0	4	10	40	50					
			IV	Inorganic Chemistry & Organic Chemistry	C	BSCPCEMC401	CC-1(4)	4 - 0 - 4	6	22	30	10	20	40	100	150 + Marks of Disc.2 & Disc.3	
				Discipline 2: CC-1(4) of Other Discipline		See Pool	CC-2(4)	See Pool	6								
				Discipline 3: CC-1(4) of Other Discipline		See Pool	CC-3(4)	See Pool	6								
				Chemistry of Cosmetics & Perfumes	SE	BSCPCEMSE401	SEC-2	4 - 0 - 0	4	10	40	50					
			V	Applied Chemistry	(Any One)	DSE	BSCPCEMDSE501	DSEC-1(1)	5 - 1 - 0	6	22	10	10	40	40	50	100 + Marks of DSEC
				Quantum Chemistry, Spectroscopy & Photochemistry			BSCPCEMDSE502		DSEC-2(1)	5 - 1 - 0						6	
				Discipline 2: DSE-1(1) of Other Discipline			See Pool		DSEC-3(1)	See Pool						6	
				Discipline 3: DSE-1(1) of Other Discipline	SE	BSCPCEMSE501	SEC-3	4 - 0 - 0	4	10	40	50					
			VI	Chemistry of Bio-molecules & Chemotherapy	(Any One)	DSE	BSCPCEMDSE601	DSEC-1(2)	5 - 1 - 0	6	22	10	10	40	40	50	100 + Marks of DSEC
				Advanced Inorganic Chemistry			BSCPCEMDSE602		DSEC-2(2)	See Pool						6	
				Discipline 2: DSE-1(2) of Other Discipline			See Pool		DSEC-3(2)	See Pool						6	
				Discipline 3: DSE-1(2) of Other Discipline	SE	BSCPCEMSE601	SEC-4	4 - 0 - 0	4	10	40	50					
Total Credit and Marks				132						750 + Marks of Disc.2 & Disc.3 + Marks of DSEC							
Abbreviations: C= Core; CC=Core Course; AE= Ability Enhancement; AEEC= Ability Enhancement Compulsory Course; GE= Generic Elective; GEC= Generic Elective Course; SE= Skill Enhancement; SEC= Skill Enhancement Course; DSE= Discipline Specific Elective; DSEC= Discipline Specific Elective Course; CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T= Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable																	
Discipline-2: Students of a particular Program Course will choose Discipline-2 of any other Discipline except of his/her own. For example, if a student opts for Program Course in Chemistry then that student is required to opt Discipline-2 from Program Courses other than Chemistry. Once Discipline-2 is chosen in the 1st Semester the student is to continue with the same in the remaining semesters.																	
Discipline-3: Students of a particular Program Course will choose Discipline-3 of any other Discipline except Discipline 1 and Discipline 2 already chosen. Once Discipline-3 is chosen in the 1st Semester the student is to continue with the same in the remaining semesters.																	
Semesterwise Pool of Core Courses offered by this Discipline (when treated as Discipline 2 for other Program Courses across the faculties as far as practicable)																	
Discipline-2	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks PracticalTheoretical		ESE Marks PracticalTheoretical		Total Marks	Sem Marks			
CHEMISTRY	I	Basics in Organic and Inorganic Chemistry	C	BSCPCEMC101	CC-2(1)	5 - 1 - 0	6	NA	30	10	20	40	50	NA			
	II	Elementary Physical Chemistry & Organic Chemistry		BSCPCEMC201	CC-3(2)	4 - 0 - 4	6										
	III	Physical Chemistry & Inorganic Chemistry		BSCPCEMC301	CC-3(3)	4 - 0 - 4	6										
	IV	Inorganic Chemistry & Organic Chemistry		BSCPCEMC401	CC-2(4)	4 - 0 - 4	6										
Semesterwise Pool of Core Courses offered by this Discipline (when treated as Discipline 3 for other Program Courses across the faculties as far as practicable)																	
Discipline-3	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks PracticalTheoretical		ESE Marks PracticalTheoretical		Total Marks	Sem Marks			
CHEMISTRY	I	Basics in Organic and Inorganic Chemistry	C	BSCPCEMC101	CC-3(1)	5 - 1 - 0	6	NA	30	10	20	40	50	NA			
	II	Elementary Physical Chemistry & Organic Chemistry		BSCPCEMC201	CC-3(2)	4 - 0 - 4	6										
	III	Physical Chemistry & Inorganic Chemistry		BSCPCEMC301	CC-3(3)	4 - 0 - 4	6										
	IV	Inorganic Chemistry & Organic Chemistry		BSCPCEMC401	CC-3(4)	4 - 0 - 4	6										

Discipline Specific Elective Course (DSEC) -2: Students of a particular Program Course will choose DSEC-2 from DSEC-1 of Discipline 2.																							
Discipline Specific Elective Course (DSEC) -3: Students of a particular Program Course will choose DSEC-3 from DSEC-1 of Discipline 3.																							
Semesterwise Pool of Discipline Specific Elective Courses (DSEC) offered by this Discipline (when treated as Discipline 2 for other Program Courses across the faculties as far as practicable)																							
Discipline-2	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks								
										Practical	Theoretical	Practical	Theoretical										
CHEMISTRY	V	Applied Chemistry	(Any One)	DSE	BSCPCEMDSE501	DSEC-2(1)	5 - 1 - 0	6	NA		10		40	50	NA								
		Quantum Chemistry, Spectroscopy & Photochemistry			BSCPCEMDSE502		5 - 1 - 0				10		40										
	VI	Chemistry of Bio-molecules & Chemotherapy	(Any One)		BSCPCEMDSE601	DSEC-2(2)	5 - 1 - 0	6			10		40	50									
		Advanced Inorganic Chemistry			BSCPCEMDSE602		5 - 1 - 0				10		40										
		Semesterwise Pool of Discipline Specific Elective Courses (DSEC) offered by this Discipline (when treated as Discipline 3 for other Program Courses across the faculties as far as practicable)																					
		Discipline-3			Semester		Course Name			Course Type	Course Code	Course Details	L - T - P			Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks
Practical	Theoretical		Practical	Theoretical																			
CHEMISTRY	V	Applied Chemistry	(Any One)	DSE	BSCPCEMDSE501	DSEC-3(1)	5 - 1 - 0	6	NA		10		40	50	NA								
		Quantum Chemistry, Spectroscopy & Photochemistry			BSCPCEMDSE502		5 - 1 - 0				10		40										
	VI	Chemistry of Bio-molecules & Chemotherapy	(Any One)		BSCPCEMDSE601	DSEC-3(2)	5 - 1 - 0	6			10		40	50									
		Advanced Inorganic Chemistry			BSCPCEMDSE602		5 - 1 - 0				10		40										
		Pool of Communication Courses offered as Ability Enhancement Compulsory Courses																					
		Discipline			Semester		Course Name			Course Type	Course Code	Course Details	L - T - P			Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks
Practical	Theoretical		Practical	Theoretical																			
English/MIL Communication	II	English Communication	(Any One)	AE	AECCE201	AECC-2	4 - 0 - 0	4	NA		10		40	50	NA								
		Bengali Communication			AECCEB201		4 - 0 - 0				10		40										
		Hindi Communication			AECCH201		4 - 0 - 0				10		40										
		Urdu Communication			AECU201		4 - 0 - 0				10		40										