



KAZI NAZRUL UNIVERSITY

FACULTY OF SCIENCE

DEGREE PROGRAMME: 3 YEARS DEGREE WITH
COMPUTER SCIENCE/4 YEARS DEGREE WITH
COMPUTER SCIENCE HONOURS/ 4 YEARS DEGREE
WITH COMPUTER SCIENCE HONOURS WITH
RESEARCH

WITH EFFECT FROM THE ACADEMIC SESSION: 2023-24

Abbreviated Degree	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				
3 YEARS DEGREE		I	Introduction to Programming using C	MAJOR	BSCCOSMJ101	MJC-1	3 - 0 - 4	5	20	30	15	20	35	100			
			MINOR COURSE- Choose from the Pool of Minor Courses offered in 1st Semester by the other Disciplines	MINOR	See Pool	MNC-1	4 - 1 - 0	5			30		70	100			
			Choose from the Pool of Multidisciplinary Courses offered in 1st Semester	MD	See Pool	MDC-1	3 - 0 - 0	3			15		35	50			
			English/MIL Communication	AEC	See Pool	AEC-1	4 - 0 - 0	4			15		35	50			
			Office Automation Software Lab	SEC	BSCCOSSE101	SEC-1	0 - 0 - 6	3		30		20		50			
		II	Data Structures and Algorithms	MAJOR	BSCCOSMJ201	MJC-2	3 - 0 - 4	5	20	30	15	20	35	100	350		
			MINOR COURSE- Minor Course opted for in the 1st semester should be continued in the 2nd semester with syllabus content of 2nd semester	MINOR	Corresponding Course Code of Minor opted in 1st Semester	MNC-2	4 - 1 - 0	5			30		70	100			
			Choose from the Pool of Multidisciplinary Courses offered in 2nd Semester	MD	See Pool	MDC-2	3 - 0 - 0	3			15		35	50			
			Environment Studies	VAC	VAC-201	VAC-1	4 - 0 - 0	4			15		35	50			
			Basics of Python	SEC	BSCCOSSE201	SEC-2	0 - 0 - 6	3		30		20		50			
		Student exiting the programmes after securing 40 credits will be awarded UG Certificate in the relevant Discipline/Subject provided they secure 4 credits in work based vocational courses offered during summer term or internship / Apprenticeship. In addition to 6 credits from skill-based courses earned during first and second semester															
		III	Discrete Mathematics	MAJOR	BSCCOSMJ301	MJC-3	4 - 1 - 0	5	22		30		70	100	400		
			Digital Logic and Design	MAJOR	BSCCOSMJ302	MJC-4	3 - 0 - 4	5		30	15	20	35	100			
			MINOR COURSE- Choose from the Pool of Minor Courses offered in 3rd Semester by the other Disciplines	MINOR	See Pool	MNC-3	4 - 1 - 0	5			30		70	100			
			Choose from the Pool of Multi-Disciplinary Courses offered in 3rd Semester	MD	See Pool	MD-3	2 - 1 - 0	3			15		35	50			
			English Communication	AE	See Pool	AECC-2	4 - 0 - 0	4			15		35	50			
		IV	Design and Analysis of Algorithms	MAJOR	BSCCOSMJ401	MJC-5	4 - 1 - 0	5	22		30		70	100	400		
			Object Oriented Design and Programming	MAJOR	BSCCOSMJ402	MJC-6	3 - 0 - 4	5		30	15	20	35	100			
			MINOR COURSE- Choose from the Pool of Minor Courses offered in 4th Semester by the other Disciplines	MINOR	See Pool	MNC-4	4 - 1 - 0	5			30		70	100			
			Web Programming	SEC	BSCCOSSE401	SEC-3	0 - 0 - 6	3		30		20		50			
VALUE ADDED COURSE- Choose from the Pool of VAC offered in 4th Semester	(Any One)		VA	See Pool	VAC-2	See Pool	4	See Pool									
Students exiting the programmes after securing 80 credits will be awarded UG Diploma in the relevant Discipline/Subject provided they secure additional 4 credits in skill based vocational courses offered during first year or second year summer term																	
V	Operating System	MAJOR	BSCCOSMJ501	MJC-7	3 - 0 - 4	5	20	30	15	20	35	100	400				
	Database Management System	MAJOR	BSCCOSMJ502	MJC-8	3 - 0 - 4	5		30	15	20	35	100					
	Computer Networks	MAJOR	BSCCOSMJ503	MJC-9	3 - 0 - 4	5		30	15	20	35	100					
	MINOR COURSE- Choose from the Pool of Minor Courses offered in 5th Semester by the other Disciplines	MINOR	See Pool	MNC-5	4 - 1 - 0	5			30		70	100					

BSCH	COMPUTER SCIENCE															
VI	Cryptography and Network Security		MAJOR	BSCCOSMJ601	MJC-10	4 - 1 - 0	5	22		30		70	100	450		
	Theory of Computation		MAJOR	BSCCOSMJ602	MJC-11	4 - 1 - 0	5			30		70	100			
	Computer Graphics		MAJOR	BSCCOSMJ603	MJC-12	3 - 0 - 4	5			30	15	20	35	100		
	Software Engineering		MAJOR	BSCCOSMJ603	MJC-13	3 - 0 - 4	5			30	15	20	35	100		
	Summer Internship		SI	BSCCOSSI601	SI-1	0 - 0 - 4	2			15		35		50		
Total Credit and Marks			TOTAL CREDIT					126	TOTAL MARKS					#REF!		
Students who want to undertake 3-year UG programme will be awarded UG Degree in the relevant Discipline / Subject upon securing 126 credits																
4 YEARS DEGREE WITH HONOURS	VII	Data Mining		MAJOR	BSCCOSMJ-701	MJC-14	4 - 1 - 0	5	25		30		70	100	500	
		Internet of Things		MAJOR	BSCCOSMJ-702	MJC-15	4 - 1 - 0	5			30		70	100		
		Artificial Intelligence and Machine Learning		MAJOR	BSCCOSMJ-703	MJC-16	3 - 0 - 4	5			30	15	20	35		100
		Embedded System		MAJOR	BSCCOSMJ-704	MJC-17	3 - 0 - 4	5			30	15	20	35		100
		MINOR COURSE- Choose from the Pool of Minor Courses offered in 7th Semester by the other Disciplines		MINOR	See Pool	MNC-6	4 - 1 - 0	5				30		70		100
	VIII	Data Analytics		MAJOR	BSCCOSMJ-801	MJC-18	3 - 0 - 4	5	22		30	15	20	35	100	500
		Cloud Computing		MAJOR	BSCCOSMJ-802	MJC-19	3 - 1 - 0	4				30		70	100	
		Cyber Security and Cyber Law		MAJOR	BSCCOSMJ-803	MJC-20	3 - 1 - 0	4				30		70	100	
		Mobile Application Development		MAJOR	BSCCOSMJ-804	MJC-21	3 - 1 - 0	4				30		70	100	
		MINOR COURSE- Choose from the Pool of Minor Courses offered in 8th Semester by the other Disciplines		MINOR	See Pool	MNC-7	4 - 1 - 0	5				30		70	100	
Total Credit and Marks			TOTAL CREDIT					173	TOTAL MARKS					#REF!		
Students will be awarded UG Degree (Honours) in the relevant Discipline / Subject provided they secure 173 credits																
4 YEARS DEGREE WITH HONOURS WITH RESEARCH	VII	Data Mining		MAJOR	BSCCOSMJ-701	MJC-14	3 - 0 - 4	5	25		30		70	100	500	
		Internet of Things		MAJOR	BSCCOSMJ-702	MJC-15	4 - 1 - 0	5			30		70	100		
		Artificial Intelligence and Machine Learning		MAJOR	BSCCOSMJ-703	MJC-16	3 - 0 - 4	5			30	15	20	35		100
		Embedded System		MAJOR	BSCCOSMJ-704	MJC-17	3 - 0 - 4	5			30	15	20	35		100
		MINOR COURSE- Choose from the Pool of Minor Courses offered in 7th Semester by the other Disciplines		MINOR	See Pool	MNC-6	4 - 1 - 0	5				30		70		100
	VIII	Data Analytics		MAJOR	BSCCOSMJ-801	MJC-18	3 - 0 - 4	5	22		30	15	20	35	100	500
		RESEARCH METHODOLOGY		RP	BSCCOSRP-801	RP-1	4 - 0 - 0	4				15		35	50	
		RESEARCH PROJECT / DISSERTATION		RP	BSCCOSRP-802	RP-2	0 - 0 - 16	8			150		100		250	
		MINOR COURSE- Choose from the Pool of Minor Courses offered in 8th Semester by the other Disciplines		MINOR	See Pool	MNC-7	4 - 1 - 0	5				30		70	100	
		Total Credit and Marks			TOTAL CREDIT						173	TOTAL MARKS				
Students will be awarded UG Degree (Honours) with Research in the relevant Discipline / Subject provided they secure 173 credits																
Abbreviations: MJC= Major (Core); AE= Ability Enhancement; AECC= Ability Enhancement Compulsory Course; MNC= Minor (Core); SE= Skill Enhancement; SEC= Skill Enhancement Course; MD= Multidisciplinary Course; SI - Summer Internship; RP= Research Project; VAC= Value Added Course; CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T= Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable																

Note: Minor Courses (MNC) : Student of a particular UG Course will choose from the Pool of Minor Courses offered by disciplines other than the major discipline opted by the student. The student is required to opt the same Minor Course (designed for 2nd semester) which he had opted in 1st semester i.e. the student will continue studying the same minor course, opted in the 1st semester. **Explanation:** If a student of COSSICS Major, opts for a Minor Course offered by Chemistry in 1st semester then that student is required to continue with the corresponding Minor Course offered by Chemistry for 2nd semester as Minor Course in the 2nd semester.

Semesterwise Pool of Minor Courses offered by this Discipline for other Honours Disciplines														
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		
Minor	I	Introduction to Programming using C	Minor	BSCCOSMN101	MNC-1	3 - 0 - 4	5		30	15	20	35	100	NA
	II	Data Structures and Algorithms	Minor	BSCCOSMN201	MNC-2	3 - 0 - 4	5		30	15	20	35		
	III	Computer Architecture and Organization	Minor	BSCCOSMN301	MNC-3	3 - 0 - 4	5		30	15	20	35		
	IV	Database Management System	Minor	BSCCOSMN401	MNC-4	3 - 0 - 4	5		30	15	20	35		
	V	Operating System and Shell Scripts	Minor	BSCCOSMN501	MNC-5	3 - 0 - 4	5		30	15	20	35		
	VII	Computer Networks	Minor	BSCCOSMN701	MNC-6	3 - 0 - 4	5		30	15	20	35		
	VIII	Artificial Intelligence and Machine Learning	Minor	BSCCOSMN801	MNC-7	3 - 0 - 4	5		30	15	20	35		

Semester wise Pool of Multidisciplinary Courses offered by this Discipline for other Disciplines														
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		
MULTI DISCIPLINARY	I	Physical Science(From Physics)	(Any One)	MDC101	MD-1	3 - 0 - 0	3			15		35	50	
		E-Commerce(From BBA)		MDC102		3 - 0 - 0				15		35		
		Human Rights(From Political Science)		MDC103		3 - 0 - 0				15		35		
		Disaster Management (From Geography)		MDC104		3 - 0 - 0				15		35		
		Fitness And Wellness (From Physical Education)		MDC105		3 - 0 - 0				15		35		
		Application Of Bio-Science (From Zoology)		MDC106		3 - 0 - 0				15		35		
		Film Appreciation (From English)		MDC107		3 - 0 - 0				15		35		
		Accounting For All (From Commerce)		MDC108		3 - 0 - 0				15		35		
		History Of Ancient Bengal (From History)		MDC109		3 - 0 - 0				15		35		
		Bangla Sahitya O Sanskriti(From Bengali)		MDC110		3 - 0 - 0				15		35		
		Money And Banking (From Economics)		MDC111		3 - 0 - 0				15		35		
		Patrakarita (From Hindi)		MDC112		3 - 0 - 0				15		35		
		Business Mathematics (Mathematics)		MDC113		3 - 0 - 0				15		35		
		Indian Society (From Sociology)		MDC114		3 - 0 - 0				15		35		
		Yoga For Daily Life (Philosophy)		MDC115		3 - 0 - 0				15		35		
		Electronic Measurements (Electronics)		MDC116		3 - 0 - 0				15		35		
		Information And Communication Technology From Computer Sc)		MDC117		3 - 0 - 0				15		35		
		Introduction To Local Flora (Dept Of Botany)		MDC118		3 - 0 - 0				15		35		
		Information And Media Literacy		MDC119		3 - 0 - 0				15		35		
	II	Mathematical Science (From Mathematics)	(Any One)	MDC201	MD-2	3 - 0 - 0	3			15		35	50	
		Business Environment (From BBA)		MDC202		3 - 0 - 0				15		35		
		Basic Statistics (Statistics)		MDC203		3 - 0 - 0				15		35		
		Cultural History of Bengal (From History)		MDC204		3 - 0 - 0				15		35		
		Personal Finance (From Commerce)		MDC205		3 - 0 - 0				15		35		
		Nutrition And Public Health (From Nutrition)		MDC206		3 - 0 - 0				15		35		
		Educational Philosophy (From Education)		MDC207		3 - 0 - 0				15		35		
		Stress Management (From Psychology)		MDC208		3 - 0 - 0				15		35		
		Social Media and Cyber Awareness (From Computer Science)		MDC209		3 - 0 - 0				15		35		
		Adhunik Bangla Sahitya (From Bengali)		MDC210		3 - 0 - 0				15		35		

		Nazrul Sangeet (Nazrul Sangeet)		MDC211		3 - 0 - 0				15		35	
		E-Waste Management (Electronics)		MDC212		3 - 0 - 0				15		35	
		Chemical Science (Chemistry)		MDC213		3 - 0 - 0				15		35	
		Critical Survey of Sanskrit Language (Sanskrit)		MDC214		3 - 0 - 0				15		35	
		Asnaf- E -Adab (Dept of Urdu)		MDC215		3 - 0 - 0				15		35	
		Anuvad Vigyan (Deptt. Of Hindi)		MDC216		3 - 0 - 0				15		35	
		Herbal Home Remedies (Dept of Botany)		MDC217		3 - 0 - 0				15		35	
	III	Bharatarvarsha—A Land of Rare Natural Endowments (From Geography)	(Any One)	MDC301	MD-3	3 - 0 - 0	3			15		35	50
		The Vedangas and Other Streams of Indian Knowledge System (From Sanskrit)		MDC302		3 - 0 - 0			15	35			
		Indian Astronomy (From Physics)		MDC303		3 - 0 - 0			15	35			
		Indian Health Sciences (From Zoology)		MDC304		3 - 0 - 0			15	35			
		Indian Mathematics (From Mathematics)		MDC305		3 - 0 - 0			15	35			
		Indian Education (From Education)		MDC306		3 - 0 - 0			15	35			
		Indian Polity and Economy (From Political Sc)		MDC307		3 - 0 - 0			15	35			
		Methodology Of Indian Knowledge System (Philosophy)		MDC308		3 - 0 - 0			15	35			

Pool of Communication Courses offered as Ability Enhancement Courses in the SEMESTER-I

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	I	English Communication	AE	AECE101	AEC-1	4 - 0 - 0	4	NA		15		35	50	NA
		Bengali Communication		AECB101		4 - 0 - 0				15	35			
		Hindi Communication		AECH101		4 - 0 - 0				15	35			
		Urdu Communication		AECU101		4 - 0 - 0				15	35			

Pool of Value Added Courses offered in the SEMESTER-IV

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		
VALUE ADDED	IV	Yoga And Health (From Physiology)	(Any One)	VAC401	VAC-2	4 - 0 - 0	4	NA		15		35	50	NA
		Social Values and Ethics (From Philosophy)		VAC402		4 - 0 - 0				15	35			
		Digital And Technological Solutions (From Computer Science)		VAC403		4 - 0 - 0				15	35			
		Understanding India (From History)		VAC404		4 - 0 - 0				15	35			
		Sustainable Development: Issues And Challenges (From Economics)		VAC405		4 - 0 - 0				15	35			
		Goods And Services Tax (From Commerce)		VAC406		4 - 0 - 0				15	35			
		Basics of Indian Constitution (From Political Science)		VAC407		4 - 0 - 0				15	35			