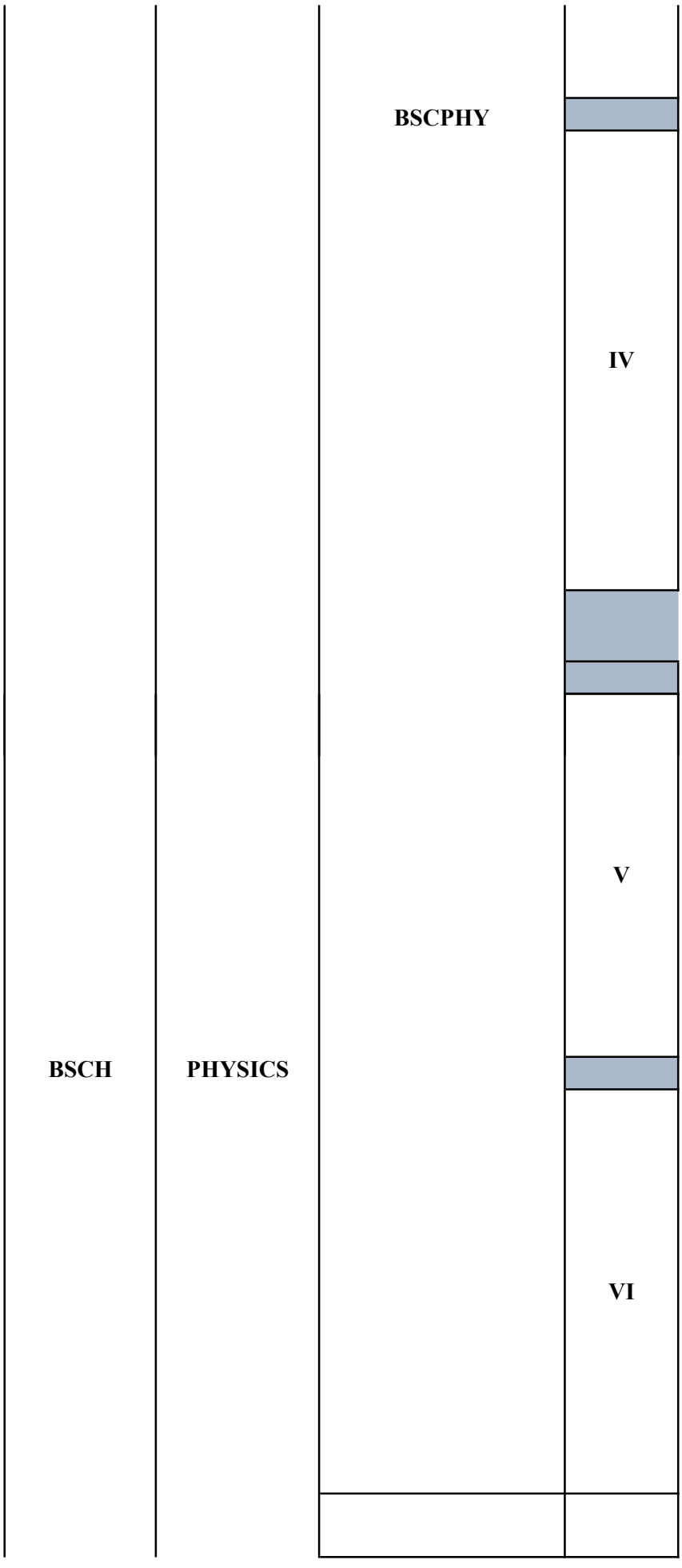
KAZI NAZRUL UNIVERSITY

Abbreviated Degree		Abbreviated Degree Programme	Semester
			I
			II
			Student ex
			III


BSCPHY
IV
V
BSCH
PHYSICS
VI

4 YEARS DEGREE WITH HONOURS	**VII**
	VIII
4 YEARS DEGREE WITH HONOURS WITH RESEARCH	**VII**

			VIII

Abbreviations: MJC-= Major (Core); AE= Ability Enhancement;

Note: Minor Courses (MNC) : Student of a particular UG Course v student will continue studying the same minor course, opted in the Minor Course in the 2nd semester.

Semesterwise Pool of Multidisciplinary Courses offered by this Dis

Discipline	Semester
MD	I
	II
	III

Discipline	Semester
English/MIL Communication	I

SEMESTER-VIII	MJC-18 MJC-19 MJC-20 MJC-21

FACULTY OF SCIENCE		DEGREE WITH I PHYSICS PHYSI
Course Name		**Course Type**
PHYSICS MAJOR		MAJOR
MINOR COURSE- Choose from the Pool of Minor Courses offered in 1st Semester by the other Disciplines		MINOR
Choose from the Pool of Multidisciplinary Courses offered in 1st Semester		MD
English/MIL Communication		AEC
From Major		SEC
PHYSICS MAJOR		MAJOR
MINOR COURSE- Minor Course opted for in the 1st semester should be continued in the 2nd semester with syllabus content of 2nd semester		MINOR
Choose from the Pool of Multidisciplinary Courses offered in 2nd Semester		MD
Environment Studies		VAC
From Major		SEC
iting the programmes after securing 40 credits will be awarded UG Certificate in the relevant Discip from ski		
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
MINOR COURSE- Choose from the Pool of Minor Courses offered in 3rd Semester by the other Disciplines		MINOR

Choose from the Pool of Multi-Disciplinary Courses offered in 3rd Semester		MD
English Communication		AE
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
MINOR COURSE- Choose from the Pool of Minor Courses offered in 4th Semester by the other Disciplines		MINOR
From Major		SEC
Health and Wellness	(Any One)	VAC
Social Values and Ethics		
Digital and Technological Solutions		
Understanding India		

Students exiting the programmes after securing 80 credits will be awarded UG Diploma in the releva

PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
MINOR COURSE- Choose from the Pool of Minor Courses offered in 5th Semester by the other Disciplines		MINOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
Summer Internship		SI
		TOTAL

Students who want to undertake 3-year UG progr

PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
MINOR COURSE- Choose from the Pool of Minor Courses offered in 7th Semester by the other Disciplines		MINOR
PHYSICS MAJOR	Atleast 4 Major papers from the pool will be provided	MAJOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
MINOR COURSE- Choose from the Pool of Minor Courses offered in 8th Semester by the other Disciplines		MINOR
Total Credit and Marks		TOTAL CREDIT

Students will be awarded UG Degree (Honours

PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR
PHYSICS MAJOR		MAJOR

MINOR COURSE- Choose from the Pool of Minor Courses offered in 7th Semester by the other Disciplines		MINOR
PHYSICS MAJOR		MAJOR
RESEARCH PROJECT / DISSERTATION		RP
MINOR COURSE- Choose from the Pool of Minor Courses offered in 8th Semester by the other Disciplines		MINOR
Total Credit and Marks		

Students will be awarded UG Degree (Honours) with R

; AECC= Ability Enhancement Compulsory Course; MNC= Minor (Core); SE= Skill Enhancer
CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T=

will choose from the Pool of Minor Courses offered by disciplines other than the major discipli
: 1st semester. Explanation: If a student of PHYSICS Major, opts for a Minor Course offered b

cipline for other Honours Disciplines

Course Name		Course Type
Physical science (Dept. of Physics/Chemistry)	(Any One)	
E-Commerce (Dept. of Commerce/BBA)		
Human Rights (Dept. of Pol Science)		
Disaster Management (Dept. of Geography/Geology)		
Film Appreciation (Department of English)		
Business Environment (Dept of Commerce)	(Any One)	
Adhunik Bangla sahitya (Dept. of PHYSICS)		
Adhunik Hindi sahitya (Dept. of Hindi)		
Application of Bio-Science (Dept of Zoology/Botany/ Microbiology)		
Educational Philosophy (Dept, of Education)		
Sports and Fitness (Dept. of Physical Education)		
Mathematical Science (Dept. of Mathematics)	(Any One)	
Cultural History of Bengal (Dept. of History)		
Business Management (Dept. of BBA)		
Nutrition and Public Health (Dept. of Nutrition)		
Stress Management (Dept. of Psychology/Philosophy/Sociology)		

Course Name		Course Type
English Communication	(Any One)	AE
Bengali Communication		
Hindi Communication		
Urdu Communication		

POOL (Any four):

1. **Laser and non-linear optics (4-1-0)**
2. **Nano-materials and applications (4-1-0)**
3. **Advanced electronics (3-0-4)**
4. **Astrophysics (4-1-0)**
5. **GTR and Cosmology (4-1-0)**
6. **Communication System (3-0-4)**
7. **Bio-Physics (3-0-4)**
8. **Plasma Physics (3-0-4)**
9. **Microwave devices and applications (3-0-4)**
10. **Computational Physics (3-0-4)**
11. **Particle Physics and Phenomenology (4-1-0)**
12. **Quantum Field Theory (4-1-0)**
13. **Medical Physics (4-1-0)**

SEC
1. Computer oriented Numerical Analysis
2. Programming in C language/ Fortran/Python/Scilab
3. Electrical Circuits and network skill
4. Basic Instrumentation skills.
5. Scientific writing and documentation.

Ɛ PROGRAMME: 3 YEARS DEGREE PHYSICS/4 YEARS DEGREE WITH HONOURS/ 4 YEARS DEGREE WITH ICS HONOURS WITH RESEARCH		WITH EFFECT FROM THE ACA				
Course Code	**Course Details**	**L - T - P**	**Course Credit**	**Sem Credit**	**CA Marks**	
					Practical	**Theoretical**
BSCPHYMJ101	Mechanics and General properties of Matter	3 - 0 - 4	5	20	30	15
See Pool	Mechanics and General properties of Matter	3 - 0 - 4	5		30	15
See Pool	MDC-1	3 - 0 - 0	3			15
See Pool	AEC-1	4 - 0 - 0	4			15
BSCPHYSE101	SEC-1	0 - 0 - 6	3		15	
BSCPHYMJ201	Electricity and magnetism	3 - 0 - 4	5	20	30	15
Corresponding Course Code of Minor opted in 1st Semester	Electricity and magnetism	3 - 0 - 4	5		30	15
See Pool	MDC-2	3 - 0 - 0	3			15
VAC-201	VAC-1	4 - 0 - 0	4			15
BSCPHYSE201	SEC-2	0 - 0 - 6	3		15	
line/Subject provided they secure 4 credits in work based vocational courses offered during summer term o ill-based courses earned during first and second semester						
BSCPHYMJ301	Mathematical Methods in Physics	4 - 1 - 0	5	22		30
BSCPHYMJ302	Optics	3 - 0 - 4	5		30	15
See Pool	Fundamentals of Optics	4 - 1 - 0	5			30

See Pool	MD-3	2 - 1 - 0	3			15
See Pool	AECC-2	4 - 0 - 0	4			15
BSCPHYMJ401	Classical Mechanics and special theory of relativity	4 - 1 - 0	5	22		30
BSCPHYMJ402	Heat and Thermal Physics	3 - 0 - 4	5		30	15
See Pool	Fundamentals of Thermal Physics	4 - 1 - 0	5			30
BSCPHYSE-401	SEC-3	0 - 0 - 6	3		15	
VAC-401	VAC-2	4 - 0 - 0	4			15
VAC-402		4 - 0 - 0				15
VAC-403		4 - 0 - 0				15
VAC-404		4 - 0 - 0				15

nt Discipline/Subject provided they secure additional 4 credits in skill based vocational courses offered dur

BSCPHYMJ501	Analog Electronics	3 - 0 - 4	5	20	30	15
BSCPHYMJ502	Quantum mechanics-I	3 - 0 - 4	5		30	15
BSCPHYMJ503	EM theory and its applications	4 - 1 - 0	5			30
See Pool	Basic Electronics	4 - 1 - 0	5			30
BSCPHYMJ601	Nuclear and Particle Physics	4 - 1 - 0	5	22		30
BSCPHYMJ602	Digital Electronics	3 - 0 - 4	5		30	15
BSCPHYMJ603	Thermodynamics and Statistical Mechanics	4 - 1 - 0	5			30
BSCPHYMJ603	Condensed Matter I and Atomic and Molecular Physics	4 - 1 - 0	5			30
BSCPHYSI601	SI-1	0 - 0 - 4	2		15	
					TOTAL	

amme will be awarded UG Degree in the relevant Discipline / Subject upon securing 126 credits

BSCPHYMJ-701	Statistical Mechanics-II	4 - 1 - 0	5	25		30
BSCPHYMJ-702	Quantum mechanics-II	4 - 1 - 0	5			30
BSCPHYMJ-703	Condensed matter physics-II	4 - 1 - 0	5			30
BSCPHYMJ-704	Indian Knowledge System (choose from pool)	4 - 1 - 0	5			30
See Pool	Modern Physics I	4 - 1 - 0	5			30
BSCPHYMJ-801	MJC-18	4 - 1 - 0	5	22		30
BSCPHYMJ-802	MJC-19	3 - 1 - 0	4			30
BSCPHYMJ-803	MJC-20	3 - 1 - 0	4			30
BSCPHYMJ-804	MJC-21	3 - 1 - 0	4			30
See Pool	Modern Physics II	4 - 1 - 0	5			30
				173	**TOTAL MARKS**	

) in the relevant Discipline / Subject provided they secure 173 credits

BSCPHYMJ-701	Statistical Mechanics-II	4 - 1 - 0	5	25		30
BSCPHYMJ-702	Quantum mechanics-II	4 - 1 - 0	5			30
BSCPHYMJ-703	Condensed matter physics-II	4 - 1 - 0	5			30
BSCPHYMJ-704	Indian Knowledge System (choose from pool)	4 - 1 - 0	5			30

See Pool	Modern Physics I	4 - 1 - 0	5			30
BSCPHYMJ-801	MJC-18	4 - 1 - 0	5	22		30
BSCPHYRP-801	RP-1	0 - 0 - 24	12		180	
See Pool	Modern Physics II	4 - 1 - 0	5			30
TOTAL CREDIT				**173**		**TC**

tesearch in the relevant Discipline / Subject provided they secure 173 credits

nent; SEC= Skill Enhancement Course; MD= Multidisciplinary Course; SI - Summer Internship; RP
: Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable

ne opted by the student. The student is required to opt the same Minor Course (designed for 2nd sem
y Chemistry in 1st semester then that student is required to continue with the corresponding Minor C

Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks	
					Practical	Theoretical
	MD-1	3 - 0 - 0	3		`	15
		3 - 0 - 0				15
		3 - 0 - 0				15
		3 - 0 - 0				15
						15
		3 - 0 - 0				15
	MD-2	3 - 0 - 0	3			15
		3 - 0 - 0				15
		3 - 0 - 0				15
		3 - 0 - 0				15
		3 - 0 - 0				15
		3 - 0 - 0				15
	MD-3	3 - 0 - 0	3			15
		3 - 0 - 0				15
		3 - 0 - 0				15
		3 - 0 - 0				15
		3 - 0 - 0				15
		3 - 0 - 0				15

Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks	
					Practical	Theoretical
AECCE101	AECC-2	4 - 0 - 0	4	NA		15
AECCB101		4 - 0 - 0				15
AECCH101		4 - 0 - 0				15
AECCU101		4 - 0 - 0				15

DEMIC SESSION: 2023-24				REMARKS
ESE Marks		Total Marks	Sem Marks	
Practical	Theoretical			
20	35	100	350	
20	35	100		
	35	50		
	35	50		
35		50		
20	35	100	350	
20	35	100		
	35	50		
	35	50		
35		50		
r internship / Apprenticeship. In addition to 6 credits				
	70	100	400	
20	35	100		
	70	100		

	35	50		
	35	50		
	70	100	400	
20	35	100		
	70	100		
35		50		
	35	50		
	35			
	35			
	35			
ing first year or second year summer term				
20	35	100	400	
20	35	100		
	70	100		
	70	100		
	70	100	450	
20	35	100		
	70	100		
	70	100		
35		50		

	70	100	500	
	70	100		
	70	100		
	70	100		
	70	100		
	70	100	500	
	70	100		
	70	100		
	70	100		
	70	100		
			3350	
	70	100	500	
	70	100		
	70	100		
	70	100		

	70	100		
	70	100	500	
120		300		
	70	100		
OTAL MARKS			**3350**	

= Research Project; VAC= Value Added Course;

ester) which he had opted in 1st semester ie. the Course offered by Chemistry for 2nd semester as

ESE Marks		Total Marks	Sem Marks
Practical	Theoretical		
	35	50	
	35		
	35		
	35		
	35		
	35		
	35	50	
	35		
	35		
	35		
	35		
	35		
	35	50	
	35		
	35		
	35		
	35		
	35		

ESE Marks		Total Marks	Sem Marks
Practical	Theoretical		
	35	50	NA
	35		
	35		
	35		