

BACHELOR OF SCIENCE (PCM)
Duration: 36 Months (3 Years) Eligibility: 12th Pass

COURSE STRUCTURE OF B.SC MATHEMATICS (HONOURS) 1st SEMESTER

Course Details				External Assessment		Internal Assessment				Credit Distribution			Allotted Credits
Course Code	Course Type	Course Title	Total Marks	Major		Minor		Sessional		L	T	P	Subject wise Distribution
				Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks				
Theory Group													
3HBHL101H	Ability Enhancement	हिन्दी भाषा और संरचना	50	25	08	10	04	15	06	2	-	-	2
3CBCA201H	Ability Enhancement	Basic Information Computer Technology - I	50	25	08	-	-	-	-	1	-	1	2
3SBMA105H	Core Course -1	Algebra, Trigonometry & Geometry	150	75	25	30	12	45	18	5	1	-	6
3SBMA106H	Core Course -2	Logic & Sets	150	75	25	30	12	45	18	5	1	-	6
	Generic Elective -1	(Select From Below Given Specialised Subject)*	100	50	17	20	08	30	12	4	-	-	4
Practical Group				Term End Practical Exam				Sessional					
	Practical	(Select From Below Given Specialised Subject)*	50	25	8	25	8	-	-	-	-	2	2
3CBCA201H	Practical	Basic of Computer & Information technology-I	-	-	-	10	04	15	06	-	-	-	-
Grand Total			550	-	-	-	-	-	-	17	02	03	22

Minimum Passing Marks are equivalent to Grade C

L- Lectures T- Tutorials P- Practical

Major- Term End Theory Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

* Generic Elective Specialization: Opted Specialization by student in 1st Semester will remain same in IInd, IIIrd and IVth Semester (See the specialisation subject as mentioned below)*

Generic Elective- 1		
Specialisation	Course Code	Subject
Physics	3SBPH103H	Mechanics, Oscillations and Properties of Matter
Chemistry	3SBCH104H	Chemistry -I

BACHELOR OF SCIENCE

Duration: 36 Months (3 Years) Eligibility: 12th Pass

COURSE STRUCTURE OF B.SC MATHEMATICS (HONOURS) IInd SEMESTER

Course Details				External Assessment		Internal Assessment				Credit Distribution			Allotted Credits
Course Code	Course Type	Course Title	Total Marks	Major		Minor		Sessional		L	T	P	Subject wise Distribution
				Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks				
Theory Group													
3HBEL201H	Ability Enhancement	English Language and Indian Culture	50	25	08	10	04	15	06	2	-	-	2
3MBFE101H	Ability Enhancement	Fundamental of Entrepreneurship	50	25	08	10	04	15	06	2	-	-	2
3SBMA205H	Core Course-3	Calculus, Differential Equations & Vector Calculus	150	75	25	30	12	45	18	5	1	-	6
3SBMA206H	Core Course-4	Theory of real functions	150	75	25	30	12	45	18	5	1	-	6
	Generic Elective-2	(Select From Below Given Specialised Subject)*	100	50	17	20	08	30	12	4	-	-	4
Practical Group				Term End Practical Exam				Sessional					
	Practical	(Select From Below Given Specialised Subject)*	50	25	08	25	08	-	-	-	-	2	2
Skill Courses								Sessional					
***	Skill Enhancement	Skill Enhancement Elective Course-I	50	-	-	-	-	50	20	1	-	1	2
Grand Total			600	-	-	-	-	-	-	19	02	03	24

Minimum Passing Marks are equivalent to Grade C

L- Lectures T- Tutorials P- Practical

Major- Term End Theory / Practical Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

Skill Elective I – Any other course being offered in this semester as per the list given at the end of course structure.

* Generic Elective Specialization: Opted Specialization by student in 1st Semester will remain same in IInd, IIIrd and IVth Semester (See the specialisation subject as mentioned below)*

Generic Elective- 2		
Specialisation	Course Code	Subject
Physics	3SBPH203H	Mathematical Background, Electrostatics, and Steady
Chemistry	3SBCH204H	Chemistry –II

BACHELOR OF SCIENCE

Duration: 36 Months (3 Years) Eligibility: 12th Pass

COURSE STRUCTURE OF B.SC MATHEMATICS (HONOURS) IIIrd SEMESTER

Course Details				External Assessment		Internal Assessment				Credit Distribution			Allotted Credits
Course Code	Course Type	Course Title	Total Marks	Major		Minor		Sessional		L	T	P	Subject wise Distribution
				Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks				
Theory Group													
3HBHL302H	Ability Enhancement	हिन्दी भाषा संरचना एवं संचार साधन	50	25	08	10	04	15	06	2	-	-	2
3CBCA502H	Ability Enhancement	Basic Information Computer Technology - II	50	25	08	-	-	-	-	1	-	1	2
3SBMA305H	Core Course-5	Calculus, Differential Equation and Mechanics	150	75	25	30	12	45	18	5	1	-	6
3SBMA306H	Core Course-6	Multivariate Calculus	150	75	25	30	12	45	18	5	1	-	6
	Generic Elective-3	(Select From Below Given Specialised Subject)*	100	50	17	20	08	30	12	4	-	-	4
Practical Group				Term End Practical Exam				Sessional					
	Practical	(Select From Below Given Specialised Subject)*	50	25	8	25	8	-	-	-	-	2	2
3CBCA502H	Practical	Basic of Computer & Information technology-II	-	-	-	10	04	15	06	-	-	-	-
Skill Courses								Sessional					
***	Skill Enhancement	Skill Enhancement Elective Course-II	50	-	-	-	-	50	20	1	-	1	2
Grand Total			600	-	-	-	-	-	-	18	02	04	24

Minimum Passing Marks are equivalent to Grade C

L- Lectures T- Tutorials P- Practicals

Major- Term End Theory / Practical Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

Skill Elective II – Any other course being offered in this semester as per the list given at the end of course structure.

* Generic Elective Specialization: Opted Specialization by student in 1st Semester will remain same in IInd, IIIrd and IVth Semester (See the specialisation subject as mentioned below)*

Generic Elective- 3		
Specialisation	Course Code	Subject
Physics	3SBPH303H	Kinetic Theory of Gases, Thermo-dynamics and Statistical Mechanics.
Chemistry	3SBCH304H	Chemistry –III

BACHELOR OF SCIENCE (PCM)

Duration: 36 Months (3 Years) Eligibility: 12th Pass

COURSE STRUCTURE OF B.SC MATHEMATICS (HONOURS) IVth SEMESTER

Course Details				External Assessment		Internal Assessment				Credit Distribution			Allotted Credits
Course Code	Course Type	Course Title	Total Marks	Major		Minor		Sessional		L	T	P	Subject wise Distribution
				Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks				
Theory Group													
3HBEL402H	Ability Enhancement	English language and scientific temper	50	25	08	10	04	15	06	2	-	-	2
3HBHP401H	Ability Enhancement	Human Values & Ethics	50	25	08	10	04	15	06	2	-	-	2
3SBMA405H	Core Course -7	Advanced Calculus, Partial Differential Equations, Complex Analysis and Abstract Algebra	150	75	25	30	12	45	18	5	1	-	6
3SBMA406H	Core Course -8	Probability & Statistics	150	75	25	30	12	45	18	5	1	-	6
	Generic Elective -4	(Select From Below Given Specialised Subject)*	100	50	17	20	08	30	12	4	-	-	4
Practical Group				Term End Practical Exam				Sessional					
	Practical	(Select From Below Given Specialised Subject)*	50	25	8	25	8	-	-	-	-	2	2
Grand Total			550	-	-	-	-	-	-	18	02	02	22

Minimum Passing Marks are equivalent to Grade C

Major- Term End Theory Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

* Generic Elective Specialization: Opted Specialization by student in 1st Semester will remain same in IInd, IIIrd and IVth Semester (See the specialisation subject as mentioned below)*

L- Lectures T- Tutorials P- Practical

Generic Elective- 4		
Specialisation	Course Code	Subject
Physics	3SBPH403H	Group Waves, Acoustics and Optics
Chemistry	3SBCH404H	Chemistry -IV

BACHELOR OF SCIENCE (HONOURS)

Duration: 36 Months (3 Years) Eligibility: 12th Pass from Science with Minimum 60%

COURSE STRUCTURE OF Physics (HONOURS) SEMESTER Vth

Course Details				External Assessment		Internal Assessment				Credit Distribution			Allocated Credits
Course Code	Course Type	Course Title	Total Marks	Major		Minor		Sessional ***		L	T	P	Subject wise Distribution
				Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks				
Theory Group													
3SBPH501 H	Core Course - 9	Physics-V (Quantum Mechanics, Atomic, Molecular and Nuclear Physics)	100	50	17	20	08	30	12	4	-	-	4
3SBPH502 H	Core Course - 10	Physics-V (Astro Physics & Atmospheric Science)	100	50	17	20	08	30	12	4	-	-	4
3SBPH503 H	Core Course -11	Analog Systems And Applications	100	50	17	20	08	30	12	4	-	-	4
**	Discipline Specific Elective -I	Elective table-I	100	50	17	20	08	30	12	4	-	-	4
***	Discipline Specific Elective - II	Elective table-II	100	50	17	20	08	30	12	4	-	-	4
Practical Group				Term End Practical Exam		Lab Performance		Sessional					
3SBPH501 H	Practical	Physics-V (Quantum Mechanics, Atomic, Molecular and Nuclear Physics)	50	25	08	25	08	-	-	-	-	2	2
3SBPH502 H	Practical	Physics-V (Astro Physics & Atmospheric Science)	50	25	08	25	08	-	-	-	-	2	2

3SBPH503 H	Practical	Analog Systems and applications	50	25	08	25	08	-	-	-	-	2	2		
**	Practical	Elective table-I	50	25	08	25	08	-	-	-	-	2	2		
***	Practical	Elective table-II	50	25	08	25	08	-	-	-	-	2	2		
								Sessional							
*****	Skill Enhancement	Skill Enhancement Elective Course-II	50	-	-	-	-	50	20	1	-	1	2		
Grand Total			800									21	-	11	32

Minimum Passing Marks are equivalent to Grade C L- Lectures T- Tutorials P- Practical

Major- Term End Theory / Practical Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

Skill Elective III – Any other course being offered in this semester as per the list given at the end of course structure

BACHELOR OF SCIENCE (HONOURS)

Duration: 36 Months (3 Years) Eligibility: 12th Pass from Science with Minimum 60%

COURSE STRUCTURE OF Physics (HONOURS) SEMESTER VIth													
Course Details				External Assessment		Internal Assessment				Credit Distribution			Allotted Credits
Course Code	Course Type	Course Title	Total Marks	Major		Minor		Sessional ***		L	T	P	Subject wise Distribution
				Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks				
Theory Group													
3SBPH601H	Core Course - 12	Physics-VI (Solid State Physics, Electronics and Laser)	100	50	17	20	08	30	12	4	-	-	4
3SBPH602H	Core Course - 13	Physics-VI (Nano Technology and Material Science)	100	50	17	20	08	30	12	4	-	-	4
3SBPH603H	Core Course - 14	Nuclear and Particle Physics	100	50	17	20	08	30	12	4	-	-	4
**	Discipline Specific Elective	Elective table-III	100	50	17	20	08	30	12	4	-	-	4
***	Discipline Specific Elective//Project/Dissertation	Elective table-IV / Group B DISSERTATION	100	50	17	20	08	30	12	4	-	-	4
Practical Group				Term End Practical Exam		Lab Performance		Sessional					
3SBPH601H	Practical	Physics-VI (Solid State Physics, Electronics and Laser)	50	25	08	25	08	-	-	-	-	2	2
3SBPH602H	Practical	Physics-VI (Nano Technology and Material Science)	50	25	08	25	08	-	-	-	-	2	2

3SBPH603H	Practical	Nuclear and Particle Physics	50	25	08	25	08	-	-	-	-	2	2
**	Practical	Elective table-III	50	25	08	25	08	-	-	-	-	2	2
***	Practical/ Project/Dissertation	Elective table-IV / Group B DISSERTATION	50	25	08	25	08	-	-	-	-	2	2
Grand Total			750							20	-	10	30

*

Minimum Passing Marks are equivalent to Grade C L- Lectures T- Tutorials P- Practical

Major- Term End Theory / Practical Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

Compulsory Project/Dessertation with choice in any Disciplinary specific elective. Compulsory one paper presentation certificate in related dicipline.

DISCIPLINE SPECIFIC ELECTIVE

***Note** - Students need to select any two from below mentioned four papers from Each Group Elective's for Fifth and Sixth semester of **B.Sc. Physics (Honours)**.

ELECTIVES FOR SEMESTER 5 TH			ELECTIVES FOR SEMESTER 6 TH		
Course Code	Course Type	List of Electives	Course Code	Course Type	List of Electives
GROUP ELECTIVE -I			GROUP ELECTIVE -III		
3SBPH504H	Discipline Specific Elective-I	EXPERIMENTAL TECHNIQUES	3SBPH604H	Discipline Specific Elective-I	Biological Physics
3SBPH505H	Discipline Specific Elective-II	Astronomy and Astrophysics	3SBPH605H	Discipline Specific Elective-II	Physics of Earth
GROUP ELECTIVE -II			GROUP ELECTIVE -IV		
3SBPH506H	Discipline Specific Elective-III	Atmospheric Physics	3SBPH606H	Discipline Specific Elective-III	Medical Physics
3SBPH507H	Discipline Specific Elective-IV	RENEWABLE ENERGY AND ENERGY HARVESTING	3SBPH607H	Discipline Specific Elective-IV	TECHNICAL DRAWING

COURSE CODE: 3SBCH608H

Dissertation/Project

Guidelines

SKILL ENHANCEMENT ELECTIVE COURSES

Non-Technical			
Elective No.	Department/ Faculty Name		
	Faculty of Information Technology		
I	SCIT 201	Data Entry Operation	2(1+0+1)
II	SCIT 301	Multimedia	2(1+0+1)
III	SCIT 501	Web Designing with HTML	2(1+0+1)
IV	SCMIT 201	Web Development	2(1+0+1)
V	SCMIT 301	LINUX	2(1+0+1)
	Faculty of Management		
I	SMGT 201	Briefing and Presentation Skills	2(1+0+1)
II	SMGT 301	Resolving Conflicts and Negotiation Skills	2(1+0+1)
III	SMGT 802	Entrepreneurship Development	2(1+0+1)
	Faculty of Commerce		
I	SCOM 201	Tally ERP 9	2(1+0+1)
II	SCOM 302	Multimedia	2(1+0+1)
III	SCOM 803	Data Analyst	2(1+0+1)
	Faculty of Humanities		
I	SHBA 301	Pursuing Happiness	2(1+0+1)
II	SHBA302	Communication Skill and Personality Development	2(1+0+1)
III	SHMA301	Tourism in M.P	2(1+0+1)
	Faculty of Science		
I	SSBI 301	Mushroom Cultivation	2(1+0+1)
II	SSPH 301	House Hold Wiring	2(1+0+1)
III	SSPH 301	Basic Instrumentation	2(1+0+1)
IV	SSPH 301	DTP Operator	2(1+0+1)
V	SSCH 301	Graphic Designing	2(1+0+1)
	Faculty of Education		
I	SCBE 403	Understanding of ICTC (Information Communication Technology)	2(1+0+1)
II	SCPE 201	Yoga Education	2(1+0+1)

SKILL ENHANCEMENT ELECTIVE COURSES

Non-Technical			
Elective No.	Department/ Faculty Name		
	Faculty of Information Technology		
I	SCIT 201	Data Entry Operation	2(1+0+1)
II	SCIT 301	Multimedia	2(1+0+1)
III	SCIT 501	Web Designing with HTML	2(1+0+1)
IV	SCMIT 201	Web Development	2(1+0+1)
V	SCMIT 301	LINUX	2(1+0+1)
	Faculty of Management		
I	SMGT 201	Briefing and Presentation Skills	2(1+0+1)
II	SMGT 301	Resolving Conflicts and Negotiation Skills	2(1+0+1)
III	SMGT 802	Entrepreneurship Development	2(1+0+1)
	Faculty of Commerce		
I	SCOM 201	Tally ERP 9	2(1+0+1)
II	SCOM 302	Multimedia	2(1+0+1)
III	SCOM 803	Data Analyst	2(1+0+1)
	Faculty of Humanities		
I	SHBA 301	Pursuing Happiness	2(1+0+1)
II	SHBA302	Communication Skill and Personality Development	2(1+0+1)
III	SHMA301	Tourism in M.P	2(1+0+1)
	Faculty of Science		
I	SSBI 301	Mushroom Cultivation	2(1+0+1)
II	SSPH 301	House Hold Wiring	2(1+0+1)
III	SSPH 301	Basic Instrumentation	2(1+0+1)
IV	SSPH 301	DTP Operator	2(1+0+1)
V	SSCH 301	Graphic Designing	2(1+0+1)
	Faculty of Education		
I	SCBE 403	Understanding of ICTC (Information Communication Technology)	2(1+0+1)
II	SCPE 201	Yoga Education	2(1+0+1)