

Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Fundamental of Chemistry -I	ndamental of Chemistry -I											
Course Code	BSCH0101[T]												
Course Outcomes & Bloom's Level	CO1- To remember basic knowle Remember) CO2- To understand Properties CO3- To Apply the compounds i CO4- To Analyse the Structure a CO5- To Evaluate the results an	edge of Atomic Stru of Inorganic Compo n the application (Bl and Properties of In- alyzed (BL5-Evalua	ucture, Chemical bonding(BL1- bunds(BL2-Understand) L 3-Apply) organic Compounds(BL4-Analyze) ate)										
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)										

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	1	1	-	-	-	-	-	-	-	-	-	3	2	2
CO2	3	3	1	-	-	-	-	-	-	-	-	-	3	2	1
CO3	3	3	1	-	-	-	-	-	-	-	-	-	2	2	1
CO4	3	3	1	-	-	-	-	-	-	-	-	-	1	2	2
CO5	3	2	1	-	-	-	-	-	-	-	-	-	1	1	2
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Calculus and Differential Equation	alculus and Differential Equations											
Course Code	BSMA0101[T]												
Course Outcomes & Bloom's Level	CO1- To get insight of fundamenta differential equation.(BL1-Rement CO2- To understand various techn (BL2-Understand) CO3- To apply notation of derivati extreme values, concavity, convex applied sciences.(BL3-Apply) CO4- To analyze behavior of curv equation.(BL4-Analyze) CO5- To evaluate Area, Quadratu curves.(BL5-Evaluate)	al knowledge of Dif Iber) niques to solve rea ve in identifying inc kity and also higher e through tracing a re, Rectification an	ferential, integration and I life problems through examples. creasing/ decreasing function, r order derivatives which arise in all nd solution of ordinary differential d Orthogonal trajectories of										
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)										

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	-	-	-	2	2	-	1	-	-	-	-	1	-	1
CO2	3	3	1	3	3	2	-	1	-	1	-	-	2	-	2
CO3	3	2	-	1	3	-	-	-	-	-	-	-	1	3	2
CO4	3	2	-	2	-	-	-	-	-	-	-	-	-	3	1
CO5	2	2	-	1	-	-	-	-	-	-	-	-	-	2	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Mechanics	chanics											
Course Code	BSPH0101[T]	SPH0101[T]											
Course Outcomes & Bloom's Level	CO1- To remember the basic law CO2- Understand the basic cond CO3- To enable students to appl systems(BL3-Apply) CO4- To analyze the applications systems.(BL4-Analyze) CO5- To evaluate the laws of me systems.(BL5-Evaluate)	vs of mechanics (B l cepts of Newtonian y the Laws of mech s of Laws of mecha cchanics and its app	L 1-Remember) Mechanics, (BL2-Understand) nanics to various mechanical nics to various mechanical plication to various mechanical										
Course Elements	Skill Development ✓ Entrepreneurship × Employability ✓ Professional Ethics × Gender × Human Values × Environment ×	SDG (Goals)	SDG4(Quality education)										

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	-	-	-	3	3	2	-	1	1	-	-	-	-	-
CO2	2	-	3	-	-	-	-	-	-	-	-	-	-	-	-
CO3	2	3	3	3	3	-	-	-	-	-	-	-	-	-	-
CO4	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	1	-	-	3	-	2	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Properties of Matter	operties of Matter											
Course Code	BSPH0102[T]	PH0102[T]											
Course Outcomes & Bloom's Level	CO1- To remember the basic law CO2- Understand the basic conc CO3- To enable students to apply CO4- To analyze the applications CO5- To evaluate the laws of Pro- mechanical systems.(BL5-Evalu	vs of Properties of N epts of Properties of y the Laws of Proper of Laws of Proper operties of Matter an ate)	Matter. (BL1-Remember) of Matter (BL2-Understand) erties of Matter (BL3-Apply) ties of Matter (BL4-Analyze) nd its application to various										
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)										

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	-	-	-	3	3	2	-	1	1	-	-	-	-	-
CO2	2	-	3	-	-	-	-	-	-	-	-	-	-	-	-
CO3	2	3	3	3	3	-	-	-	-	-	-	-	-	-	-
CO4	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	1	-	-	3	-	2	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	ndia in 21st centuary											
Course Code	VAC0101[T]											
Course Outcomes & Bloom's Level	CO1- 1. Students are able Freedom movement and de CO2- 2. Students are able after Independence India.(I CO3- 3. Students are able change with reference to m CO4- 4. Students are able and character of 20 and 21 constitution(BL6-Create)	reedom movement and development of political Institutions.(BL1-Remember) O2- 2. Students are able to summarize and extract the time before Independence and ter Independence India.(BL2-Understand) O3- 3. Students are able to evaluate India society, Its nature and agencies of social nange with reference to modernization.(BL5-Evaluate) O4- 4. Students are able to write the historical accounts that shaped the very nature nd character of 20 and 21 st century India with reference to Nation Building and onstitution(BL6-Create)										
Course Elements	Skill Development ✓ Entrepreneurship X Employability X Professional Ethics X Gender ✓ Human Values √ Environment X	SDG (Goals)	SDG3(Good health and well-being) SDG4(Quality education) SDG5(Gender equality) SDG10(Reduced inequalities) SDG12(Responsible consuption and production) SDG13(Climate action)									

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
CO2	-	-	-	-	-	1	-	-	2	-	-	-	1	1	1
CO3	-	-	-	-	-	2	2	-	-	-	-	-	2	1	1
CO4	-	-	-	-	-	1	-	-	-	-	-	-	2	1	2
CO5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Hindi[T]	
Course Code	AEC0101	
Course Outcomes & Bloom's Level	CO1- भारतीय ज्ञान परम्परा सेवि द्यार्थि यर्थि ों को अवगत करान CO2- सांस्कृतिक ,एवं राष्ट्रिय एकता।।(BL3-Apply) CO3- भाषा अध्ययन एवं अध्यापन का उद्देश्य विद्यार्थियों के सर्वांग जीविकोपार्जन के लक्ष्यों का सहज संधान कर सके । जीविकोपार्ज (BL2-Understand) CO4- पाठ्यक्रम में व्याकरण ,सामान्य तथा पारम्परिक साहित्य , समग्र व्यक्तित्व का विकास करना है। (BL3-Apply)	IT (BL1-Remember) गिण विकास में सहायक है। छात्र न के लक्ष्यों का सहज संधान कर सके । लेखन परम्परा का बोध करना एवं
Course Elements	Skill Development ✓ Entrepreneurship X Employability X Professional Ethics X Gender X Human Values ✓ Environment X	SDG (Goals)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	-	-	2	-	-	-	-	2	-	-	-	-	-	-
CO2	-	2	-	-	-	2	-	1	-	-	-	-	-	-	-
CO3	2	-	-	1	-	-	-	-	-	2	-	-	-	-	-
CO4	2	-	-	-	-	2	-	-	1	-	-	-	-	-	-
CO5	1	-	-	-	1	-	-	2	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	NCC		
Course Code	NCC0101		
Course Outcomes & Bloom's Level	CO1- Develop the qualities CO2- Imbibe leadership qua CO3- Be motivated to serve CO4- Contribute in environ CO5- Keep abreast of curre CO6- Effectively contribute	of social skills.() alities. () the nation by jo mental awarenes ent affairs & gene in managing dis	bining Armed forces. () ss and conservation activities() eral awareness.() aster relief tasks()
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values ✓ Environment ✓	SDG (Goals)	SDG3(Good health and well-being) SDG4(Quality education) SDG6(Clean water and sanitation) SDG13(Climate action) SDG15(Life on land)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Analytical Chemistry		
Course Code	BSCH0201[T]		
Course Outcomes & Bloom's Level	CO1- To remember basic concep Remember) CO2- To understand the difference Understand) CO3- To use/apply the basic stati correct result and analytical meth CO4- To Analyse Qualitative and CO5- To Evaluate the data obtain	t and principle of an between the ana stical treatment of t ods (BL3-Apply) Quantitative aspected from the analys	nalytical techniques (BL1- lytical techniques (BL2- the analytical data for getting a ts (BL4-Analyze) is (BL5-Evaluate)
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	P01	PO2	PO3	PO4	PO5	PO6	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	1	1	-	-	-	-	-	-	-	-	-	3	3	2
CO2	3	3	1	-	-	-	-	-	-	-	-	-	3	2	1
CO3	3	1	-	2	-	-	-	-	-	-	-	-	1	1	2
CO4	2	3	-	-	-	-	-	-	-	-	-	-	1	1	2
CO5	2	2	-	-	-	-	-	-	-	-	-	-	2	2	1
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Abstract Algebra		
Course Code	BSMA0201[T]		
Course Outcomes & Bloom's Level	CO1- CO1: To remember the basic Subgroups, Cyclic Groups, Homor Automorphisms, Ring and Field.(E CO2- CO2: To understand the fun- Fields and integral domains.(BL2- CO3- CO3: To apply the knowledg the fields of learning including high CO4- CO4: To analyze and solve the different groups, rings, and fiel CO5- CO5: To evaluate the studie the results of the different theorem	c knowledge of the morphism and Ison BL1-Remember) damental concept Understand) le of groups, rings, her research and e the well-defined pro ds.(BL4-Analyze) d problems from a hs.(BL5-Evaluate)	e Groups, Subgroups, Normal norphism of groups, and properties of Groups, Rings, fields and integral domains in all xtensions. (BL3-Apply) oblems in mathematics related to pplication point of view by using
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	PO1	PO2	PO3	PO4	PO5	PO6	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	-	-	3	-	-	-	-	1	-	-	-	-	-	-
CO2	1	-	-	2	-	-	-	-	1	-	-	-	-	-	-
CO3	-	2	-	-	1	-	-	-	-	2	-	-	-	-	-
CO4	2	-	1	-	-	-	-	2	-	-	-	-	-	-	-
CO5	1	-	-	2	-	-	-	2	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Thermodynamics and Kinetic Th	modynamics and Kinetic Theory of Gases												
Course Code	BSPH0201[T]													
Course Outcomes & Bloom's Level	CO1- To remember the basic law Gases(BL1-Remember) CO2- Understand the basic conc Gases(BL2-Understand) CO3- To apply the concepts of T different system(BL3-Apply) CO4- To Analyze the laws of The Analyze) CO5- To evaluate the laws of the Evaluate)	vs of Thermodynam cepts of Thermodyn hermodynamics an ermodynamics and ermodynamics and	nics and Kinetic theory of namics and Kinetic theory of d Kinetic theory of Gases to Kinetic theory of Gases (BL4- Kinetic theory of Gases (BL5-											
Course Elements	Skill Development X Entrepreneurship ✓ Employability X Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)											

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	-	-	-	2	2	1	-	-	-	-	-	-	-	-
CO2	1	-	3	-	-	-	-	-	-	-	-	-	-	-	-
CO3	1	3	-	2	2	-	-	-	-	-	-	-	-	-	-
CO4	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	1	-	-	3	-	2	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Statistical physics		
Course Code	BSPH0202[T]		
Course Outcomes & Bloom's Level	CO1- To remember the basic la CO2- Understand the basic con CO3- To apply the concepts of \$ CO4- To Analyze the laws of \$ta CO5- To evaluate the laws of \$ta	ws of Statistical Phy cepts of Statistical I Statistical Physics to atistical Physics (BL tatistical Physics (BL	ysics(BL1-Remember) Physics(BL2-Understand) o different system.(BL3-Apply) 4-Analyze) _5-Evaluate)
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	-	-	-	2	2	1	-	-	-	-	-	-	-	-
CO2	1	-	3	-	-	-	-	-	-	-	-	-	-	-	-
CO3	1	3	-	2	2	-	-	-	-	-	-	-	-	-	-
CO4	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	1	-	-	3	-	2	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	SEC-2		
Course Code	SEC0201		
Course Outcomes & Bloom's Level	CO1- 1.At the end of this cou a sense of modern Indian his understanding of making of I understanding of salient feat their personality and thinking (BL5-Evaluate)	irse, students w story and culture ndia as a natior ures of modern horizon for beil	Yould be intellectually well equipped to have e . 2. The students will have an n . 3.The students will have an India . 4.It will help students to develop ng a good and concerned Indian citizen
Course Elements	Skill Development X Entrepreneurship X Employability X Professional Ethics X Gender X Human Values √ Environment X	SDG (Goals)	SDG4(Quality education) SDG5(Gender equality) SDG11(Sustainable cities and economies) SDG15(Life on land)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	nvironmental Studies											
Course Code	BSFC0201[T]											
Course Outcomes & Bloom's Level	CO1The course shall de understand how the earth Remember) CO2- At the end of the cou analyze environmental pro (BL2-Understand) CO3- Ability to distinguish Apply) CO4- Students acquire ski environmental managemen	velop in studer works and how irse, it is expec blems as well a between variou lls for to comm nt project. (BL4	nt the scientific background needed to we, as human beings, fit into that. (BL1- sted that students will be able to identify and as the risks associated with these problems. us methods of various pollution analysis. (BL3- unicate, prepare, plan and implement the -Analyze)									
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment √	SDG (Goals)	SDG3(Good health and well-being) SDG5(Gender equality) SDG6(Clean water and sanitation) SDG7(Affordable and clean energy) SDG9(Industry Innovation and Infrastructure) SDG11(Sustainable cities and economies) SDG12(Responsible consuption and production) SDG13(Climate action) SDG14(Life below water) SDG15(Life on land)									

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO3	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-
CO4	1	-	-	-	-	-	-	-	-	-	-	-	-	2	3
CO5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	3
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	English-I											
Course Code	AEC0201[T]											
Course Outcomes & Bloom's Level	CO1- Determine interpersonal sl player(BL1-Remember) CO2- Elaborate creativity and lat CO3- Examine attitudes, emotion behavior(BL3-Apply) CO4- Justify approaches to conf CO5- Evaluate goal setting, mar	Determine interpersonal skills and be an effective goal-oriented team r(BL1-Remember) Elaborate creativity and lateral thinking(BL2-Understand) Examine attitudes, emotional intelligence and understand its influence on vior(BL3-Apply) Justify approaches to conflict resolution.(BL4-Analyze) Evaluate goal setting, management, decision-making skills.(BL5-Evaluate)										
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values ✓ Environment X	SDG (Goals)	SDG4(Quality education)									

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	-	-	-	2	2	-	-	-	2	-	-	1	-	1
CO2	2	2	1	2	2	2	-	-	-	2	-	-	1	-	3
CO3	2	1	1	-	1	-	-	-	-	2	-	-	3	2	3
CO4	3	2	-	2	1	-	-	-	-	2	-	-	2	3	3
CO5	3	2	-	2	1	-	-	-	-	2	-	-	2	2	3
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	NCC (optional)	C (optional)										
Course Code	NCC0201[T]	0201[T]										
Course Outcomes & Bloom's Level	CO1- Develop the qualities CO2- Imbibe leadership quant CO3- Be motivated to server CO4- Contribute in environ CO5- Keep abreast of curre CO6- Effectively contribute	 Develop the qualities of social skills.() Imbibe leadership qualities. () Be motivated to serve the nation by joining Armed forces. () Contribute in environmental awareness and conservation activities() Keep abreast of current affairs & general awareness.() Effectively contribute in managing disaster relief tasks() 										
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values ✓ Environment ✓	SDG (Goals)	SDG3(Good health and well-being) SDG4(Quality education) SDG6(Clean water and sanitation) SDG13(Climate action) SDG15(Life on land)									

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Inorganic Chemistry		
Course Code	BSCH0301[T]		
Course Outcomes & Bloom's Level	CO1- To remember Knowledge of reduction, Complexes, Lanthanid CO2- To understand Properties ar compounds, Acids and Bases, No Understand) CO3- To Apply the Transition elem different application(BL3-Apply) CO4- To inspect the Structure, Bo Complexes(BL4-Analyze) CO5- To Assess the results analyze	Transition elemen es, Actinides (BL1- nd uses of Transitio on aqueous solven nents, Complexes, onding ,Magnetic P zed (BL5-Evaluate	ts, Acids and Bases, Oxidation and Remember) on elements, Coordination ts Lanthanides, Actinides(BL2- Lanthanides, Actinides in the Properties of Transition elements,
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	1	1	-	-	-	-	-	-	-	-	-	2	2	1
CO2	3	3	1	-	-	-	-	-	-	-	-	-	3	2	2
CO3	3	3	1	-	-	-	-	-	-	-	-	-	2	2	1
CO4	2	3	1	-	-	-	-	-	-	-	-	-	1	2	2
CO5	3	2	-	-	-	-	-	-	-	-	-	-	1	1	2
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Vector Analysis & Linear Algebra										
Course Code	BSMA0301[T]										
Course Outcomes & Bloom's Level	 CO1: To get insight of fundamental knowledge of matrix, group theory and ransformations.and basic concept of vector analysis (BL1-Remember) CO2: CO2: To understand various techniques to solve real life problems through examples.(BL2-Understand) CO3: CO3: To apply the concepts of matrix, vector space, linear transformation and Gauss theorem , stock theorem , green theorem and other concept of vector analysis on many branches of Physics, Engineering, Social sciences and Mathematics (BL3-Apply) CO4: CO4To analyze the concept of Gauss theorem , stock theorem , green theorem and other concept of vector analysis .(BL4-Analyze) CO5: CO5: To evaluate gradient ,divergence ,curl andInverse, Eigen value and Eigen vector of matrix (BL5-Evaluate) 										
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)								

		-													
COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	-	-	-	2	2	-	1	-	-	-	-	-	-	-
CO2	3	3	1	3	3	2	-	-	-	-	-	-	-	-	-
CO3	3	2	-	1	3	-	-	-	-	-	-	-	-	-	-
CO4	3	2	-	2	-	-	-	-	-	-	-	-	-	-	-
CO5	2	2	-	1	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Optics		
Course Code	BSPH0301[T]		
Course Outcomes & Bloom's Level	CO1- To remember the basic la CO2- Understand the basic con CO3- To apply the concepts of (CO4- To Analyze the laws of Op CO5- To evaluate the laws of O	ws of Optics(BL1-R icepts of Optics(BL 2 Optics to different s otics(BL4-Analyze) ptics(BL5-Evaluate	Remember) 2-Understand) ystem. (BL3-Apply) e)
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	3	2	1	-	-	-	-	-	-	-	-	-	-
CO2	2	1	3	2	-	-	-	-	-	-	-	-	-	-	-
CO3	2	1	3	2	2	-	-	-	-	-	-	-	-	-	-
CO4	1	2	3	2	2	-	-	-	-	-	-	-	-	-	-
CO5	2	1	3	2	2	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Oscillations of Waves		
Course Code	BSPH0302[T]		
Course Outcomes & Bloom's Level	CO1- To remember the basic la CO2- Understand the basic con CO3- To apply the concepts of V CO4- To Analyze the laws of Wa CO5- To evaluate the laws of W	ws of Wave and Os cepts of Wave and Wave and Oscillations ave and Oscillations /ave and Oscillation	cillations(BL1-Remember) Oscillations(BL2-Understand) ons to different system. (BL3-Apply) s(BL4-Analyze) s(BL5-Evaluate)
Course Elements	Skill Development X Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	2	3	2	-	-	-	-	-	-	-	-	-	-
CO2	3	3	2	1	1	-	-	-	-	-	-	-	-	-	-
CO3	3	2	1	2	2	-	-	-	-	-	-	-	-	-	-
CO4	2	2	3	2	1	-	-	-	-	-	-	-	-	-	-
CO5	1	1	3	1	1	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Organic Chemistry		
Course Code	BSCH0401[T]		
Course Outcomes & Bloom's Level	CO1- To remember con CO2- To understand the Understand) CO3- To apply the vario CO4- To recognize mec CO5- To know the chem	cept of substitu concept of ad us reagents in hanism of oxid histry of photoc	ition reactions (BL1-Remember) dition and elimination reactions (BL2- the organic synthesis (BL3-Apply) ation reaction. (BL4-Analyze) hemical reactions. (BL5-Evaluate)
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education) SDG9(Industry Innovation and Infrastructure)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	3	3	-	-	-	-	-	-	3	2	3	3	3
CO2	3	2	2	2	-	-	-	-	-	-	2	2	2	2	2
CO3	3	2	2	1	-	-	-	-	-	-	1	2	2	2	1
CO4	3	3	1	1	-	-	-	-	-	-	1	2	1	1	1
CO5	3	2	1	1	-	-	-	-	-	-	1	1	1	1	1
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Advance Calculus and Differential	lequations	
Course Code	BSMA0401[T]		
Course Outcomes & Bloom's Level	CO1- To remember basic concept of Real Analysis ,Partial Different various problems of sciences. (BL1-Remember) CO2- To understand and identify the Convergence of sequences vat convergence of sequences , limit ,continuity and differentiability of f differentiation, Envelops , maxima and minima , Double and Triple I surface of solids.also(BL2-Understand) CO3- To apply the concept of limit continuity and differentiability pa ,Taylors theorem , LaGrange's method , double and triple integrals problems of physical and allied sciences(BL3-Apply) CO4- To analyze and draw connection among the ideas of LaGrang Beta Gama function , volume and surface and there properties to s problems of physical and allied sciences also Analyze behavior of t well-defined problems of differentiation (BL4-Analyze) CO5- To evaluate Double and Triple integral , Partial differentiation series also identifying and provide the various applications related to Evaluate)		
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

-															
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	-	-	-	2	2	-	2	-	-	-	-	1	-	1
CO2	3	3	1	3	3	2	-	1	-	1	-	-	2	-	2
CO3	3	2	-	1	3	-	-	-	-	-	-	-	1	3	2
CO4	3	2	-	2	-	-	-	-	-	-	-	-	-	3	1
CO5	2	1	-	1	-	-	-	-	-	-	-	-	-	2	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Electricity and Magnetism		
Course Code	BSPH0401{T]		
Course Outcomes & Bloom's Level	 CO1- To remember the basic law CO2- Understand the basic con CO3- To apply the concepts of E Apply) CO4- To Analyze the laws of Ele CO5- To evaluate the laws of Ele 	ws of Electricity and cepts of Electricity a Electricity and Magnet ectricity and Magnet ectricity and Magnet	d Magnetism (BL1-Remember) and Magnetism (BL2-Understand) netism to different system. (BL3- tism (BL4-Analyze) etism (BL5-Evaluate)
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	3	2	2	-	2	-	-	-	-	-	-	-	-
CO2	2	3	2	2	2	-	-	-	-	-	-	-	-	-	-
CO3	2	2	2	3	1	-	1	-	-	-	-	-	-	-	-
CO4	1	1	3	2	3	-	-	-	-	-	-	-	-	-	-
CO5	3	2	1	1	1	-	3	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Electromgnetic Theory		
Course Code	BSPH0404[T]		
Course Outcomes & Bloom's Level	CO1- To remember the basic la CO2- Understand the basic con CO3- To apply the concepts of I CO4- To Analyze the laws of Ele CO5- To evaluate the laws of Ele	ws of Electrodynam cepts of Electromag Electrodynamics to ectromagnetic theor ectrostatics and Ma	tics (BL1-Remember) gnetic theory (BL2-Understand) different system. (BL3-Apply) y (BL4-Analyze) agneto statics (BL5-Evaluate)
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	1	3	1	1	-	-	-	-	-	-	-	-	-	-
CO2	1	2	2	2	2	-	-	-	-	-	-	-	-	-	-
CO3	2	3	1	2	2	-	-	-	-	-	-	-	-	-	-
CO4	3	2	2	3	1	-	-	-	-	-	-	-	-	-	-
CO5	1	1	1	1	2	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Physical Chemistry	sical Chemistry											
Course Code	BSCH0501[T]												
Course Outcomes & Bloom's Level	CO1- To remember Knowledge of Photochemistry(BL1-Remember CO2- To understand Mechanism Photochemistry(BL2-Understan CO3- To Apply the concept in the CO4- To Analyze the Physical Po CO5- To Evaluate the results and	of Quantum Mechai r) of Quantum Mech d) e different applicatio ope ties of compour alyzed (BL5-Evalua	nics, Spectroscopy, anics, Spectroscopy, on(BL3-Apply) nds(BL4-Analyze) a te)										
Course Elements	Skill Development ✓ Entrepreneurship × Employability ✓ Professional Ethics × Gender × Human Values × Environment ×	SDG (Goals)	SDG4(Quality education)										

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	1	1	-	-	-	-	-	-	-	-	-	3	2	2
CO2	3	3	1	-	-	-	-	-	-	-	-	-	2	1	1
CO3	3	3	1	-	-	-	-	-	-	-	-	-	2	2	1
CO4	3	3	1	-	-	-	-	-	-	-	-	-	1	2	2
CO5	3	2	-	-	-	-	-	-	-	-	-	-	1	1	2
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Computer Oriented Statistical Me	omputer Oriented Statistical Methods												
Course Code	BSMA0501[T]													
Course Outcomes & Bloom's Level	CO1- To remember the data colle (BL1-Remember) CO2- To analyze the relationship a simple correlation. (BL4-Analyz CO3- To apply the concept of san Apply) CO4- TO Understand the concept properties, difference between pa CO5- To evaluate the correlation tendency(BL5-Evaluate)	 In remember the data conection plans and basic tools of descriptive statistics I-Remember) To analyze the relationship between two variables using scatter plot and Interpret nple correlation. (BL4-Analyze) To apply the concept of sampling distribution of a statistic and hypothesis(BL3- ly) I- TO Understand the concept of sampling distribution of a statistic and its perties, difference between parameter and statistic(BL2-Understand) To evaluate the correlation and regression analysis and measure of central lency(BL5-Evaluate) 												
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)											

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	-	-	-	2	2	-	-	-	-	-	-	1	-	1
CO2	3	3	1	3	3	2	-	-	-	1	-	-	2	-	2
CO3	3	2	-	1	3	-	-	-	-	-	-	-	1	3	2
CO4	3	2	-	2	-	-	-	-	-	-	-	-	-	3	1
CO5	2	2	-	1	-	-	-	-	-	-	-	-	-	2	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Atomic and Nuclear Physics	omic and Nuclear Physics											
Course Code	BSPH0501[T]												
Course Outcomes & Bloom's Level	CO1- To remember the basic law CO2- Understand the basic con CO3- To apply the concepts of A Apply) CO4- To Analyze the laws of Ato CO5- To evaluate the laws of Ato	ws of Atomic and No cepts of Atomic and tomic and Nuclear omic and Nuclear Pl omic and Nuclear P	uclear Physics (BL1-Remember) I Nuclear Physics (BL2-Understand) Physics to different system. (BL3- hysics (BL4-Analyze) Physics (BL5-Evaluate)										
Course Elements	Skill Development ✓ Entrepreneurship X Employability X Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)										

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	-	-	2	2	-	-	-	-	-	-	-	-	-	-
CO2	2	-	3	2	-	-	-	-	-	-	-	-	-	-	-
CO3	1	3	3	-	-	-	-	-	-	-	-	-	-	-	-
CO4	3	-	2	-	2	-	-	-	-	-	-	-	-	-	-
CO5	1	2	-	3	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Elementry quantum mechanics	mentry quantum mechanics												
Course Code	BSPH0502[T]													
Course Outcomes & Bloom's Level	CO1- To remember the basic la CO2- To understand the basic of CO3- To apply the concepts of (CO4- To Analyze the laws/postu CO5- To evaluate the laws/post	ws of Quantum Mec concepts of Quantur Quantum Mechanic Ilates of Quantum N ulates of Quantum I	chanics (BL1-Remember) m Mechanics (BL2-Understand) s to different system. (BL3-Apply) Mechanics (BL4-Analyze) Mechanics (BL5-Evaluate)											
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)											

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	3	1	1	-	-	-	-	-	-	-	1	1	2
CO2	2	1	3	1	2	-	-	-	-	-	-	-	1	2	1
CO3	1	2	3	1	2	-	-	-	-	-	-	-	1	1	-
CO4	1	3	2	1	1	-	-	-	-	-	-	-	2	1	2
CO5	1	2	3	2	1	-	-	-	-	-	-	-	1	2	3
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Electronics												
Course Code	DSE1[T]												
Course Outcomes & Bloom's Level	CO1- To remember the different b waves, oscillation, basic of differe CO2- To understand the continuity different amplifier circuit(BL2-Und CO3- To apply in designing the ne shaping and oscillation.(BL3-App CO4- To analysis amplification by its conditions, differential and ope CO5- To evaluate the operating pe circuits, wave shaping circuit, class	 res, oscillation, basic of differential and operational amplifier(BL1-Remember) 2- To understand the continuity equation, pn junction and operating point and erent amplifier circuit(BL2-Understand) 3- To apply in designing the new circuit for amplifier using RC, OPAM, wave ping and oscillation.(BL3-Apply) 4- To analysis amplification by a circuit, wave shaping, basic oscillation circuit and conditions, differential and operational amplifier(BL4-Analyze) 5- To evaluate the operating point of diode and transistor, gain in various amplifier usits, wave shaping circuit, class A, class B and class C amplifiers(BL5-Evaluate) 											
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)										

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	3	2	1	-	-	-	-	-	-	-	-	-	-
CO2	2	1	3	2	2	-	-	-	-	-	-	-	-	-	-
CO3	2	1	2	1	2	-	-	-	-	-	-	-	-	-	-
CO4	1	2	1	3	1	-	-	-	-	-	-	-	-	-	-
CO5	2	1	3	2	2	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Classical Mechanics		
Course Code	BSPH0601[T]		
Course Outcomes & Bloom's Level	CO1- To remember the various for Hamiltonian and Hamilton-Jacobi CO2- To understand the dynamic energy and momentum(BL2-Und CO3- To enable students to apply CO4- To analyze the applications research and trajectories of celes CO5- To evaluate understanding dynamical systems(BL5-Evaluat)	ormulations of class (BL1-Remember) al system; and its r lerstand) v the various dynam of dynamical syste tial bodies(BL4-An of various formulati e)	sical mechanics like Lagrangian, relation to dynamical variables like nical systems. (BL3-Apply) em in various fields such as nalyze) ions in time evaluation of
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	3	1	1	-	-	-	-	-	-	-	1	1	2
CO2	1	2	3	1	2	-	-	-	-	-	-	-	1	2	1
CO3	1	2	3	1	2	-	-	-	-	-	-	-	1	2	3
CO4	1	3	2	1	1	-	-	-	-	-	-	-	2	1	2
CO5	1	2	3	2	1	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Mathematical Physics	athematical Physics												
Course Code	BSPH0602[T]													
Course Outcomes & Bloom's Level	CO1- To remember the various fo and Laplace transformation, differ CO2- To understand the theorems Understand) CO3- To apply complex analysis, equation and tensor in Mechanics CO4- To build analysis capacity of Laplace transformation, differentia CO5- To evaluate given physical p Fourier and Laplace transformation	rmulae of linear alg ential equation and s in linear algebra, Fourier and Laplac and others branch f using linear algeb al equation and ten problems using line on, differential equa	gebra, complex analysis, Fourier d tensor.(BL1-Remember) complex analysis and tensor(BL2- e transformation, differential nes of physics.(BL3-Apply) ra, complex analysis, Fourier and sor(BL4-Analyze) ear algebra, complex analysis, ition and tensor(BL5-Evaluate)											
Course Elements	Skill Development ✓ Entrepreneurship X Employability X Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)											

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	3	1	-	-	-	-	-	-	-	-	1	1	2
CO2	1	2	3	1	-	-	-	-	-	-	-	-	1	2	1
CO3	1	2	3	1	-	-	-	-	-	-	-	-	1	1	-
CO4	1	3	2	1	-	-	-	-	-	-	-	-	2	1	2
CO5	1	2	3	2	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Condence Matter Physics	Condence Matter Physics											
Course Code	DSPH0601[P]	DSPH0601[P]											
Course Outcomes & Bloom's Level	CO1- To remember different cryst thermal and electronic properties CO2- To understand the origin of semiconductor junction, formation CO3- To apply knowledge of cryst given compound(BL3-Apply) CO4- To analysis difference betwee density of states(BL4-Analyze) CO5- To evaluate the different for conductivity, electronic properties	hermal and electronic properties of solid. (BL1-Remember) CO2- To understand the origin of specific heat, energy band gap, formation of semiconductor junction, formation of defects in crystal (BL2-Understand) CO3- To apply knowledge of crystal structure, electronic and thermal properties on a given compound (BL3-Apply) CO4- To analysis difference between specific heat, conductivity in semiconductors and density of states (BL4-Analyze) CO5- To evaluate the different formation crystal by nature, thermal and electrical conductivity, electronic properties of conductors and semiconductors (BL5-Evaluate)											
Course Elements	Skill Development X Entrepreneurship X Employability X Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)										

	-	-		-	-	-									-
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	3	1	1	-	-	-	-	-	-	-	1	1	2
CO2	1	2	3	1	2	-	-	-	-	-	-	-	1	2	1
CO3	1	2	3	1	2	-	-	-	-	-	-	-	1	1	3
CO4	1	3	2	1	1	-	-	-	-	-	-	-	2	1	2
CO5	1	2	3	2	1	-	-	-	-	-	-	-	1	2	3
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Condence Matter Physics	Condence Matter Physics											
Course Code	DSPH0601[T]	DSPH0601[T]											
Course Outcomes & Bloom's Level	CO1- To remember different cryst thermal and electronic properties CO2- To understand the origin of semiconductor junction, formation CO3- To apply knowledge of cryst given compound(BL3-Apply) CO4- To analysis difference betwe density of states(BL4-Analyze) CO5- To evaluate the different for conductivity, electronic properties	hermal and electronic properties of solid(BL1-Remember) CO2- To understand the origin of specific heat, energy band gap, formation of semiconductor junction, formation of defects in crystal(BL2-Understand) CO3- To apply knowledge of crystal structure, electronic and thermal properties on a given compound(BL3-Apply) CO4- To analysis difference between specific heat, conductivity in semiconductors and density of states(BL4-Analyze) CO5- To evaluate the different formation crystal by nature, thermal and electrical conductivity, electronic properties of conductors and semiconductors((BL5-Evaluate)											
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)										

									-	-	-	-	-	-	-
COs	P01	PO2	PO3	PO4	PO5	PO6	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	3	1	1	-	-	-	-	-	-	-	1	1	2
CO2	1	2	3	1	2	-	-	-	-	-	-	-	1	2	1
CO3	2	3	2	2	2	-	-	-	-	-	-	-	1	1	3
CO4	1	2	1	1	1	-	-	-	-	-	-	-	2	1	2
CO5	1	2	2	3	1	-	-	-	-	-	-	-	1	2	3
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Atomic and Molecular Physics											
Course Code)SPH0602[T]											
Course Outcomes & Bloom's Level	CO1- To Rember basics of aton CO2- To understand the mecha CO3- To apply selection rules, la CO4- To analyze the process of CO5- To evaluate and apply the	 D1- To Rember basics of atomic and molecular spectroscopy(BL1-Remember) D2- To understand the mechanisms of various spectroscop(BL2-Understand) D3- To apply selection rules, laws to understand the atoms and molecule(BL3-Apply) D4- To analyze the process of molecule formation and luminescence(BL4-Analyze) D5- To evaluate and apply the concepts for laser applications(BL5-Evaluate) 										
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)									

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	1	2	2	-	-	-	-	-	-	-	-	-	-
CO2	2	2	3	3	1	-	-	-	-	-	-	-	-	-	-
CO3	2	2	2	1	1	-	-	-	-	-	-	-	-	-	-
CO4	1	3	1	2	2	-	-	-	-	-	-	-	-	-	-
CO5	3	1	2	1	3	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Nano-1		
Course Code	DSPH0603[T]		
Course Outcomes & Bloom's Level	CO1- To Learn basics of nanotect Remember) CO2- To understand the nucleation heterogeneous route and charact CO3- To apply synthesis character CO4- To analyze the process of g influence the properties of Nanom CO5- To evaluate and optimize the designs(BL5-Evaluate)	nnology, size effect on and growth of pa erization process(E erization routes for prowth and characte naterials,(BL4-Ana be procedures, and	, properties, significance (BL1- articles in homogeneous and BL2-Understand) nano particle growth (BL3-Apply) erization and various factors lyze) implementations to the new
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability X Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	1	3	2	-	-	-	-	-	-	-	-	-	-
CO2	2	2	3	2	1	-	-	-	-	-	-	-	-	-	-
CO3	2	3	2	1	3	-	-	-	-	-	-	-	-	-	-
CO4	1	2	1	2	2	-	-	-	-	-	-	-	-	-	-
CO5	3	1	3	3	1	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-