

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

Title of the Course	Programming in C		
Course Code	BSCS0101[T]		
Course Outcomes & Bloom's Level	Understand) CO3- To apply the various techni CO4- To analysis modular progra	and testing, implem ques for C Progran amming( <b>BL4-Analy</b>	nentation and maintenance.(BL2-nming.(BL3-Apply)
Course Elements	Skill Development ✓ Entrepreneurship ✓ 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	-	-	-	-	-	-	-	-	-	-	-	_	-	-
CO2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
CO3	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-
CO4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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

Title of the Course	Basics of Computer and informati	asics of Computer and information technology											
Course Code	BSCS0102[T]												
	CO1- To Remember the basics of CO2- Understand basic concepts Understand) CO3- To apply the various technic CO4- To analysis of MS Office in CO5- To evaluate the study proble types of Software and solve base Evaluate)	and terminology of ques for Basics Cor Windows and other em of application p	f information technology.(BL2-mputer Knowledge.(BL3-Apply) OS.(BL4-Analyze) rogrammings by using the different										
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	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
CO2	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-
CO3	-	-	-	-	3	-	-	3	-	-	-	-	-	-	-
CO4	-	-	4	4	-	-	-	-	-	-	-	-	-	-	-
CO5	5	-	-	-	5	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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

Title of the Course	Calculus and Differential Equation	ns	
Course Code	BSMA0101[T]		
Course Outcomes & Bloom's Level	CO1- To get insight of fundamental differential equation. (BL1-Remer CO2- To understand various techn (BL2-Understand) CO3- To apply notation of derivative extreme values, concavity, convey applied sciences.(BL3-Apply) CO4- To analyze behavior of curve equation.(BL4-Analyze) CO5- To evaluate Area, Quadratucurves.(BL5-Evaluate)	nber) niques to solve rea ve in identifying inc kity and also higher e through tracing a	I life problems through examples.  creasing/ decreasing function, r order derivatives which arise in all and solution of ordinary differential
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	-	-	-	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	Properties of Matter												
Course Code	BSPH0101[T]												
	CO2- Understand the basic cond CO3- To enable students to apply CO4- To analyze the applications	I- To remember the basic laws of Properties of Matter. (BL1-Remember) 2- Understand the basic concepts of Properties of Matter (BL2-Understand) 3- To enable students to apply the Laws of Properties of Matter (BL3-Apply) 4- To analyze the applications of Laws of Properties of Matter(BL4-Analyze) 5- To evaluate the laws of Properties of Matter and its application to various chanical systems.(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	P07	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	India in 21st centuary	dia in 21st centuary											
Course Code	VAC0101[T]	C0101[T]											
Course Outcomes & Bloom's Level	Freedom movement and de CO2- 2. Students are able after Independence India.(ICO3- 3. Students are able change with reference to m CO4- 4. Students are able	evelopment of to summarize BL2-Understa to evaluate Incondernization.(to write the his	dia society, Its nature and agencies of social										
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	PO1	PO2	PO3	PO4	PO5	P06	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	-	-	-	-	-	2	2	2	1	1	-	2	1	-	-
CO2	-	-	-	-	-	1	2	2	1	2	-	1	-	-	-
CO3	-	-	-	-	-	1	2	1	1	1	-	1	-	1	1
CO4	-	-	-	-	-	1	3	1	1	1	-	1	-	-	-
CO5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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

Title of the Course	Hindi	
Course Code	AEC0101[T]	
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 सर्वांग्जीविकोपार्जन 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)	ीण विकास में सहायक है। छात्र न के लक्ष्यों का सहज संधान कर सके ।
	Skill Development ✓ Entrepreneurship X Employability X Professional Ethics X Gender X Human Values ✓ Environment X	SDG (Goals)

COs	PO1	PO2	PO3	PO4	PO5	PO6	P07	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[T]		
	CO1- Develop the qualities CO2- Imbibe leadership qu CO3- Be motivated to serve CO4- Contribute in environ CO5- Keep abreast of curre CO6- Effectively contribute	alities. () e the nation by jo mental awarene ent affairs & geno	pining Armed forces. () ss and conservation activities() eral awareness.()
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X 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	P06	P07	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	Operating System		
Course Code	BSCS0201[T]		
Course Outcomes & Bloom's Level	CO1- To Remember the basics of CO2- To Understand the concept CO3- To apply the various technic Science(BL3-Apply) CO4- To analysis of Inter-process system.(BL4-Analyze) CO5- To evaluate the study proble of the different algorithms and solv sciences(BL5-Evaluate)	of System Progran ques of Operating s Communication ar em from application	nmer's view(BL2-Understand) system in the field of Computer and Synchronization of Operating a point of view by using the results
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	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-
CO3	-	-	-	-	3	-	-	-	3	-	-	-	-	-	-
CO4	-	4	-	-	-	-	-	-	-	4	-	-	-	-	-
CO5	-	-	-	5	-	5	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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

Title of the Course	DBMS										
Course Code	BSCS0202[T]										
	weaknesses(BL2-Understand) CO3- To apply the various technic Science(BL3-Apply) CO4- To analysis of design entity- application scenarios(BL4-Analyz	eory of the relationarues of SQL progra relationship diagra re) em from User point	al model and both its strengths and ams in the field of Computer ams to represent simple database of view by using the results of the								
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics X Gender X Human Values X Environment X	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics × Gender × Human Values ×									

COs	PO1	PO2	PO3	PO4	PO5	PO6	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
CO3	3	-	-	-	3	-	-	-	-	-	-	-	-	-	-
CO4	-	4	-	-	-	-	-	-	-	-	-	4	-	-	-
CO5	-	-	5	-	5	-	-	-	-	-	-	-	-	-	-
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 basi Subgroups, Cyclic Groups, Homor Automorphisms, Ring and Field.(ECO2- CO2: To understand the fun Fields and integral domains.(BL2-CO3- CO3: To apply the knowledge 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	morphism and Ison BL1-Remember) damental concept ( Understand) Je of groups, rings, her research and e the well-defined production of the lds.(BL4-Analyze) d problems from a	norphism of groups, and properties of Groups, Rings, fields and integral domains in all xtensions.(BL3-Apply) oblems in mathematics related to
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	hermodynamics and Kinetic Theory of Gases										
Course Code	BSPH0201[T]	SPH0201[T]										
Course Outcomes & Bloom's Level	CO1- To remember the basic law Gases(BL1-Remember) CO2- Understand the basic cond 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)	cepts of Thermodyn hermodynamics an ermodynamics and	amics and Kinetic theory of d Kinetic theory of Gases to Kinetic theory of Gases (BL4-									
Course Elements	Skill Development X Entrepreneurship ✓ Employability X Professional Ethics X Gender X Human Values X Environment X	Entrepreneurship ✓ Employability X Professional Ethics X Gender X Human Values X  SDG (Goals) SDG4(Quality education)										

COs	PO1	PO2	PO3	PO4	PO5	PO6	P07	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	a sense of modern Indian his understanding of making of I understanding of salient feat	,									
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	P07	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	Environmental Studies		
Course Code	BSFC0201[T]		
	understand how the earth of Remember) CO2- At the end of the coulonalyze environmental pro (BL2-Understand) CO3- Ability to distinguish Apply)	works and how urse, it is expect blems as well a between variou lls for to comm	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) 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	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	-	-	-	-	1	-	-	-	-	-	1	2	3
CO2	1	-	-	-	-	-	1	-	-	-	-	-	1	-	1
CO3	1	2	-	-	-	-	1	-	-	-	-	-	1	2	-
CO4	1	2	-	2	-	-	-	2	-	-	-	-	1	2	3
CO5	1	2	-	-	-	-	-	2	-	-	-	-	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	player(BL1-Remember) CO2- Elaborate creativity and la CO3- Examine attitudes, emotio behavior(BL3-Apply) CO4- Justify approaches to conf	Elaborate creativity and lateral thinking(BL2-Understand)  Examine attitudes, emotional intelligence and understand its influence on rior(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	P07	P08	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)		
Course Code	NCC0201[T]		
Course Outcomes & Bloom's Level	CO1- Develop the qualities CO2- Imbibe leadership qu CO3- Be motivated to serve CO4- Contribute in environ CO5- Keep abreast of curre CO6- Effectively contribute	alities. () e the nation by jo mental awarenes ent affairs & geno	pining Armed forces. () ss and conservation activities() eral awareness.()
	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	P06	P07	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	Computer Networks										
Course Code	BSCS0301[T]										
Course Outcomes & Bloom's Level	CO2- Understand to the concept address Translation, Mobile IP.(B CO3- Apply to Unicast and Multic (BL3-Apply) CO4- Analyze the applications to Analyze)	O4- Analyze the applications to address the issues of Networking Technologies.(BL4-nalyze) O5- Evaluating to investigate routers, IP and Routing Algorithms in Network syer(BL5-Evaluate)									
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG4(Quality education)									

COs	PO1	PO2	PO3	PO4	PO5	PO6	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
CO2	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
CO3	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
CO4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-
CO6	_	_	-	-	_	_	-	-	-	-	-	-	-	-	-



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

Title of the Course	Data Structure										
Course Code	BSCS0302[T]										
Course Outcomes & Bloom's Level	CO1- To Remember Have a com Remember) CO2- To Understand the importa requirements for an application(ECO3- To apply have a practical e implementation(BL3-Apply) CO4- To analysis develop project structures.(BL4-Analyze) CO5- To Evaluate Have practical structures;(BL5-Evaluate)	nce of data and be  BL2-Understand)  Experience of algorites  Experience the imp	able to identify the data								
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics X Gender X Human Values X Environment X	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics × Gender × Human Values ×									

COs	PO1	PO2	PO3	PO4	PO5	P06	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	_
CO3	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-
CO4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-
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]										
	CO2- CO2: To understand various examples.(BL2-Understand) CO3- CO3: To apply the concepts Gauss theorem, stock theorem, gon many branches of Physics, Engapply) CO4- CO4To analyze the concept and other concept of vector analyse	transformations 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 and Inverse, Eigen value and Eigen									
Course Elements	Skill Development ✓ Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X										

COs	PO1	PO2	PO3	PO4	PO5	P06	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]		
	CO1- To remember the basic la CO2- Understand the basic con CO3- To apply the concepts of CO4- To Analyze the laws of OCO5- To evaluate the laws of O	cepts of Optics(BL2 Optics to different sy otics(BL4-Analyze)	2-Understand) ystem. (BL3-Apply)
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	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	Object Oriented Programming Co	bject Oriented Programming Concept using C++											
Course Code	BSCS0401[T]												
	CO1- To Remember the basics of CO2- To Understand the concept CO3- To apply the various technic ideas using C++ programs.(BL3-/CO4- To analysis of C++ streams Analyze) CO5- To evaluate the aim of teach conceptual and practical knowled-	of object oriented pages for problem so Apply) , Inheritance and C	programming (BL2-Understand) plying and will implement those perator Overloading.(BL4- that students should have										
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)										

COs	PO1	PO2	PO3	PO4	PO5	P06	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	_
CO2	-	-	-	-	2	-	-	-	-	-	2	-	-	-	_
CO3	-	-	-	-	3	-	-	-	-	-	-	-	-	-	_
CO4	-	4	-	4	-	-	-	-	-	-	-	4	-	-	_
CO5	-	-	-	-	5	-	-	-	-	-	-	-	5	-	_
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_



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

Title of the Course	Computer system organization		
Course Code	BSCS0402[T]		
	CO1- Remembering: Basic compfunctions of its various units(BL1-CO2- Understanding: Understand microoperations.(BL2-Understand CO3- Applying: Identify, compare logic and arithmetic operations, SCO4- Analyzing: different types of techniques.(BL4-Analyze)CO5- Evaluating: the performance Evaluate)CO6- Create and design various is system like ALU, Memory, Bus, et	Remember) the basic operationd) and assess to Busummarize the types addressing modes issues of cache nardware and softw	and memory, Register transfer s of micro operations.(BL3-Apply) s, various types of IO mapping nemory and virtual memory(BL5-vare logics to make a computer
Course Elements	Skill Development ✓ Entrepreneurship ✓ 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	3	-	-	-	-	-	-	-	-	-	-	-	2	-	2
CO2	1	2	-	-	2	-	-	-	-	-	-	-	2	3	3
CO3	3	1	-	-	2	-	-	-	-	-	-	-	3	3	3
CO4	-	1	1	2	1	-	-	-	-	-	-	-	2	2	3
CO5	-	1	-	-	1	-	-	-	-	-	-	-	2	2	2
CO6	3	1	_	-	_	_	_	-	-	-	-	-	2	-	_



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

Title of the Course	Advance Calculus and Differentia	dvance Calculus and Differential equations												
Course Code	BSMA0401[T]													
Course Outcomes & Bloom's Level	various problems of sciences. (BL CO2- To understand and identify the convergence of sequences, limit, differentiation, Envelops, maxima surface of solids.also(BL2-Unders CO3- To apply the concept of limit	.1-Remember) the Convergence of continuity and differ and minima, Double and thod, double and tiences (BL3-Apply) ction among the idea surface and there piences also Analyzation (BL4-Analyzation (BL4-Analyzation)	erentiability of function partial ble and Triple Integral volume and erentiability partial differentiation criple integrals to solve various.  Deas of LaGrange's theorem and properties to solve various e behavior of the solution of the e)  differentiation, Convergence 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	P06	P07	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		cepts of Electricity a Electricity and Magr ectricity and Magnet	and Magnetism(BL2-Understand) netism to different system. (BL3- tism(BL4-Analyze)
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG4(Quality education)

COs	PO1	PO2	PO3	PO4	PO5	P06	P07	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	AEC-IV											
Course Code	AEC0401[T]											
Course Outcomes & Bloom's Level	CO2- सांस्कृतिक ,एवं राष्ट्रिय एकता CO3- भाषा अध्ययन एवं अध्यापन व जीविकोपार्जन के लक्ष्यों का सहज सं ()	3- भाषां अध्ययन एवं अध्यापन का उद्देश्य विद्यार्थियों के सर्वांगीण विकास में सहायक है। छात्र वेकोपार्जन के लक्ष्यों का सहज संधान कर सके । जीविकोपार्जन के लक्ष्यों का सहज संधान कर सके । 4- पाठ्यक्रम में व्याकरण ,सामान्य तथा पारम्परिक साहित्य , 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)	SDG3(Good health and well-being)									

COs	PO1	PO2	PO3	PO4	PO5	P06	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	-	-	-	1	-	-	-	3	-	-	-	-	-	_
CO2	-	-	3	-	-	-	2	1	-	-	-	-	-	-	-
CO3	-	1	-	-	2	-	-	-	2	-	-	-	-	-	-
CO4	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-
CO5	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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

Title of the Course	Web Designing with PHP	/eb Designing with PHP											
Course Code	BSCS0501[T]												
	CO2- To understand the basics of knowledge about file system.(BL: CO3- To implement: HTML, Java create Web applications.(BL3-ApcO4- To analyze various Server-Techniques(BL4-Analyze) CO5- To evaluate and improve the	web Programming(BL1-Remember)  2- To understand the basics of web architecture, Development techniques, by											
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG1(No poverty) SDG2(Zero hunger) SDG4(Quality education)										

COs	PO1	PO2	PO3	PO4	PO5	P06	P07	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	3	3	1	2	-	-	-	-	-	-	-	1	2	1
CO2	2	2	-3	2	1	-	-	-	-	-	-	-	2	2	2
CO3	2	1	1	1	3	-	-	-	-	-	-	-	1	2	1
CO4	1	2	-1	2	2	-	-	-	-	-	-	-	2	2	1
CO5	2	2	2	1	2	-	-	-	-	-	-	-	1	2	1
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 collet (BL1-Remember) CO2- To analyze the relationship a simple correlation. (BL4-Analyze CO3- To apply the concept of san Apply) CO4- TO Understand the concept properties, difference between particular concept co5- To evaluate the correlation tendency(BL5-Evaluate)	between two varial ze) npling distribution o t of sampling distribution trameter and statist	bles using scatter plot and Interpret of a statistic and hypothesis(BL3- oution of a statistic and its tic(BL2-Understand)										
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	P06	P07	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	Java Programing	va Programing											
Course Code	BSPH0502[T]	PH0502[T]											
Course Outcomes & Bloom's Level	CO2- To understand various Multithreading, networking at CO3- To implement java AW/handling, java IO for Input ar Apply) CO4- To analyze various Errimprove the performance of	Object-Oriented on database cor T and Swing and output handling or ,and Databas the java applicated	ava programming(BL1-Remember) d Concepts, Exception handling, nnectivity techniques(BL2-Understand) d for GUI Programming and Event ng, jdbc for database connectivity(BL3- te Handling techniques to learn how to tion(BL4-Analyze) ication Development techniques(BL5-										
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG1(No poverty) SDG2(Zero hunger) SDG4(Quality education) SDG8(Decent work and economic growth)										

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



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

Title of the Course	Al and its Application	nd its Application											
Course Code	DSE1[T]												
Course Outcomes & Bloom's Level	CO1- Remember(BL1-R CO2- Understand(BL2-L CO3- Analyze(BL3-App CO4- Apply(BL4-Analyz CO5- Create(BL6-Creat	Jnderstand) ly) :e)											
Course Elements	Skill Development X Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG1(No poverty) SDG2(Zero hunger) SDG8(Decent work and economic growth)										

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



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

Title of the Course	Software Enineering		
Course Code	BSCS0601[T]		
Course Outcomes & Bloom's Level	the software.(BL3-Apply) CO4- To Analyze various various strategies(BL4-Analyze) CO5- To evaluate the the need of Management Software (BL5-Eva	haracteristic's & cri <b>_2-Understand)</b> C, ER, DFD models testing techniques f Software Maintena fluate) gn Strategies, Archi	sis of software and process of s, to collect SRS, And understand and the concept of testing
Course Elements	Skill Development X Entrepreneurship ✓ Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG1(No poverty) SDG2(Zero hunger) SDG4(Quality education)

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



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

Title of the Course	Python programming	thon programming												
Course Code	BSCS0602[T]													
Course Outcomes & Bloom's Level	and basic concepts of python.(BLCO3- Apply the various condition (BL3-Apply) CO4- Explain various objects nurregular expression(BL4-Analyze)	2- Understand the basics of Python like python origin downloading and installing I basic concepts of python.(BL2-Understand) 3- Apply the various conditional and looping statement and functional programming. 3-Apply) 4- Explain various objects numbers and sequence in python Analyze the concept of ular expression(BL4-Analyze) 5- Evaluate the concept of object-oriented programming for better utilization of guage(BL5-Evaluate)												
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG1(No poverty) SDG2(Zero hunger) SDG4(Quality education)											

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



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

Title of the Course	Cloud Computing		
Course Code	DSE0601[T]		
Course Outcomes & Bloom's Level	(BL1-Remember) CO2- To understand the storinfrastructure management a CO3- To implement the setu data center. Create the virtua Apply) CO4- To analyze the function policies. (BL4-Analyze)	rage techniques and services. (E p of storage tec al server and virtuality of data ce	s for information storage and management. s, concepts of data center, data center BL2-Understand) chniques such as RAID, LUN Masking at rtualize the resources as on demand.(BL3-enter or storage infrastructure as per center or storage infrastructure on various
Course Elements	Skill Development X Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values X Environment X	SDG (Goals)	SDG1(No poverty) SDG3(Good health and well-being) SDG4(Quality education) SDG8(Decent work and economic growth) SDG10(Reduced inequalities)

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



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

Title of the Course	Ethical Hacking Fundamental									
Course Code	DSE0602[T]									
	security, Threats in a networ remember the defense mech CO2- An attendee will under that can be done on a mach social networks IOT Devices CO3- An attendee will be absoftware vulnerabilities in sa develop countermeasures at CO4- An attendee will be abdesign preventive measures about their functionalities. (B CO5- An attendee will be abvectors open for attacks ove domains. (BL5-Evaluate) CO6- An attendee will be ab	k, social netwon anisms agains stand the risks ine over interned and methods to the holds and methods to analyze the for network de L4-Analyze) le to evaluate to the network a le to Create / d	r the basics of computer networks, Network rks, attack domains and will be able to st all attacks. (BL1-Remember) of being on network and possible attacks at gaining access on devices over network, to secure them.(BL2-Understand) concepts learnt to identify the hardware and ment, deploy an attack and will be able to ectors identified.(BL3-Apply) he methods used to deploy an attack and vices against various attacks and learn the methods used to exploit the attack and record their performance in all possible esign systems/algorithms for identifying in over the communication network.(BL6-							
Course Elements	Skill Development X Entrepreneurship X Employability X Professional Ethics X Gender X Human Values ✓ Environment X	SDG (Goals)	SDG1(No poverty) SDG2(Zero hunger) SDG3(Good health and well-being) SDG4(Quality education) SDG8(Decent work and economic growth) SDG11(Sustainable cities and economies)							

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



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

Title of the Course	Mobile Application Develop	ment								
Course Code	DSE0603[T]									
Course Outcomes & Bloom's Level	and XML(BL1-Remember) CO2- CO2: To understand Capplication development coractivities.(BL2-Understand) CO3- To implement XML, Ja(BL3-Apply) CO4- To analyze various wid Analyze)	CO2- CO2: To understand Object Oriented concepts for Android and various mobile application development concepts including interface designing, handling multiple activities.(BL2-Understand) CO3- To implement XML, Java and mysql for database connectivity and file system. (BL3-Apply) CO4- To analyze various widgets and learn to use them as per the problem.(BL4-Analyze) CO5- To develop solutions for real world problems using android application								
Course Elements	Skill Development X Entrepreneurship X Employability ✓ Professional Ethics X Gender X Human Values ✓ Environment X	SDG (Goals)	SDG1(No poverty) SDG2(Zero hunger) SDG3(Good health and well-being) SDG4(Quality education) SDG8(Decent work and economic growth) SDG10(Reduced inequalities) SDG11(Sustainable cities and economies)							

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