



BVVS

BASAVESHWAR ENGINEERING COLLEGE, BAGALKOTE

Department of Information Science and Engineering

UG SCHEME OF TEACHING AND EXAMINATION

(Admitted from 2023-2024)

Applicable to students admitted in AY 23-24 to 1st sem and through lateral entry in AY 24-25 to 3rd sem (3rd NEP Batch)

Presented By

Dr. S P Bangarashetti

Professor and Head

Department of Information Science and Engineering

Proposed Curriculum Framework for BE Program

(For the Students admitted to first year from 2023-2024 and to 2nd year lateral entry from 2024-2025)

S.N.	Category	VTU New	BEC (old)	BEC (New)	ISE
1.	HSMC: HSS (Constitution-1, Kannada-1, English-2, Social Connect & Responsibility-1, UHV – 1, EVS-1, HSMS-3 (research Methodology & IPR Offered by Dept @ 7 th sem) = 10 AEC: Ability Enhancement Courses : SFH-1, IDT-1, dept AEC-1+1 (3 rd & 4 th sem), SS-2(5 th sem), IKS -1 (6 th sem), MOOCS-3 (6 th sem) = 10	16 (10)	10	19	20
2.	BSC: Basic Science Courses (Physics-4, Chemistry-4 , Biology for Engineers -2 and Mathematics- 12)	22 (23)	23	22	22
3.	ESC&ETC/PLC: Engineering Science Courses (Basic Electrical/Electronics/Computer/Mechanics/CAED)	24 (20)	19	18	18
4.	PCC: Professional Core Courses	59 (46)	49	56	55
5.	PEC: Professional Elective Courses relevant to the branch with at least one course either fully or partially supported by industry	12 (09)	12	12	12
6.	OEC: Open Electives Courses/ Subjects from other technical/Arts/Commerce (3 MOOCS + 6)	12 (04)	9 + 11 = 20	09	09
7.	Mini (2) and Major projects (12)/Industrial Internships (10)	15 (33)	26	24	24
8.	Mandatory Course: PE, Yoga, NSS, Bridge course Maths 1 and 2 (lateral Entry)	00 (04)	01	00	00
Total		160	160	160	160

Department of Information Science and Engineering

Suggestive Break-up of Credits for B.E (Common to all Branches)

(For the Students admitted to first year from 2023-2024 onwards and to 2nd year lateral entry from 2024-2025 onwards)

(3rdNEP Batch)

Sem.	BSC	ESC/ ETC	HSMC	AEC	PCC	PEC	OEC	Proj.	Int.	Total
1.	08	09	02	1(SFH)						20
2.	08	09	02	1(IDT)						20
3.	04	03	01	1	12					21
4.	02	03	01	1	12					19
5.			01	2 (SS)	09	03	03	02		20
6.				1(IKS)	13	03	03			20
7.			03		03	06		12		24
8.				3 (MOOCS)			3 (MOOCS)		10	16
Tot.	22	24	10	10	49	12	09	14	10	160

Department of Information Science and Engineering

B. E. I semester Scheme of Teaching and Examinations

(Effective from the academic year 2024-25)

I Semester (CSE Stream)

Branches: CS, IS, AIML and BT

(Chemistry Group)

Applicable to students admitted in AY 23-24 to 1st sem and through lateral entry in AY 24-25 to 3rd sem (3rd NEP Batch)

Sl. No.	Course			TD	Credits	Teaching Hours/Week			Examination			
	Category	Code	Title			Theory Lecture	Tutorial	Practical/Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks
1	BSC(IC)	22UMA103C	Mathematics for Computer Sciences - I	Maths	4	3	0	2	3	50	50	100
2	BSC(IC)	22UCH111C	Chemistry for Computer Sciences	Chemistry	4	3	0	2	3	50	50	100
3	ESC	22UCS119C	Principles of Programming using C	Computer Science	3	2	0	2	3	50	50	100
4	ESC-I	22UXXXXXE	Engineering Science Course-I	Respective Engg. Dept	3	3	0	0	3	50	50	100
5	ETC-I	22USXXXXE	Emerging Technology Course-I	Any Engg. Dept	3	2	0	2	3	50	50	100
6	HSMC	22UHS124C	Communicative English	Humanities	1	1	0	0	1	50	50	100
7	HSMC	22UHS126C 22UHS127C	Kannada – SK Kannada - BK	Humanities	1	1	0	0	1	50	50	100
8	AEC	22UHS129C	Innovation and Design Thinking	Any Dept	1	1	0	0	1	50	50	100
Total					20	16	0	08	18	400	400	800
SDA-Skill Development Activities, TD/PSB- Teaching Department / Paper Setting Board, ASC-Applied Science Course, ESC- Engineering Science Courses, ETC-Emerging Technology Course, AEC- Ability Enhancement Course, HSMC-Humanity and Social Science and management Course, SDC- Skill Development Course,CIE–Continuous InternalEvaluation,SEE-SemesterEnd Examination,IC–IntegratedCourse(TheoryCourseIntegratedwithPracticalCourse)												

Sem	BSC	ESC	HSMC	AEC	PCC	PEC	OEC	Proj.	Int.	Total
1	08	09	02	1						20

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B. E. II semester Scheme of Teaching and Examinations

(Effective from the academic year 2024-25)

II Semester (CSE Stream)

(Physics Group)

Applicable to students admitted in AY 23-24 to 1st sem and through lateral entry in AY 24-25 to 3rd sem (3rd NEP Batch)

Sl. No.	Course			TD	Credits	Teaching Hours/Week			Examination			
	Category	Code	Title			Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks
						L	T	P				
1	BSC(IC)	22UMA203C	Mathematics for Computer Sciences - II	Maths	4	3	0	2	3	50	50	100
2	BSC(IC)	22UPH207C	Physics for Computer Sciences	Physics	4	3	0	2	3	50	50	100
3	ESC	22UME223C	CAED	Civil / Mechanical	3	2	0	2	3	50	50	100
4	ESC-I	22UXXXXE	Engineering Science Course-II	Respective Engg. Dept	3	3	0	0	3	50	50	100
5	PLC-I	22USXXXXE	Programming Language Course-I	Any Engg. Dept	3	2	0	2	3	50	50	100
6	HSSM	22UHS224C	Professional writing skills in English	Humanities	1	1	0	0	1	50	50	100
7	HSSM	22UHS225C	Indian Constitution	Humanities	1	1	0	0	1	50	50	100
8	AEC	22UHS228C	Scientific Foundations of Health	Any Dept	1	1	0	0	1	50	50	100
Total					20	16	0	08	18	400	400	800
SDA-Skill Development Activities, TD/PSB- Teaching Department / Paper Setting Board, ASC-Applied Science Course, ESC- Engineering Science Courses, ETC-Emerging Technology Course, AEC- Ability Enhancement Course, HSMC-Humanity and Social Science and management Course, SDC- Skill Development Course,CIE–Continuous InternalEvaluation,SEE-SemesterEnd Examination,IC–IntegratedCourse(TheoryCourseIntegratedwithPracticalCourse)												

Sem	BSC	ESC	HSMC	AEC	PCC	PEC	OEC	Proj.	Int.	Total
2	08	09	02	1						20

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3rd Semester

Applicable to students admitted in AY 23-24 to 1stsem and through lateral entry in AY 24-25 to 3rdsem (3rd NEP Batch)

Sl.No.	Course			Credits	Teaching Hours/Week			Examination			
	Category	Code	Title		TheoryLecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks
					L	T	P				
1	BSC	22UMA311C	MathematicsforComputerScience	4	4	0	0	4	50	50	100
2	IPCC	22UIS302C	Digital Design and Computer Organization (Integrated)	4	3	0	2	5	50	50	100
3	IPCC	22UIS306C	Operating Systems (Integrated)	4	3	0	2	5	50	50	100
4	PCC	22UIS307C	Data Structures and Applications	3	3	0	0	3	50	50	100
5	PCCL	22UIS381L	Data Structures Lab	1	0	0	2	2	50	50	100
6	ESC	22UIS308C	Object Oriented Programming with Java (Integrated)	3	2	0	2	4	50	50	100
7	UHV	22UHS307C	Social Connect and Responsibility	1	0	0	2	2	50	50	100
8	AEC	22UIS382L	Data Analytics with EXCEL	1	0	0	2	2	50	50	100
9	MC	UHS002M	National Service Scheme	0	0	0	2	2	100	0	100
		UHS003M	Physical Education (Sports and Athletics)								
		UHS001M	Yoga								
10		AAP	AICTE Activity Points								
Total				21	15	0	14	29	500	400	900

Sem.	BSC	ESC	HSMC	AEC	PCC	PEC	OEC	Proj.	Int.	Total
3	04	03	01	01	12					21

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4th Semester

Applicable to students admitted in AY 23-24 to 1stsem and through lateral entry in AY 24-25 to 3rdsem (3rd NEP Batch)

Sl.No.	Course			Credits	Teaching Hours/Week			Examination			
	Category	Code	Title		TheoryLecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks
					L	T	P				
1	PCC	22UIS402C	Analysis & Design of Algorithms	3	3	0	0	3	50	50	100
2	IPCC	22UIS404C	Advanced Java	4	3	0	2	5	50	50	100
3	IPCC	22UIS405C	Database Management Systems	4	3	0	2	5	50	50	100
	PCCL	22UIS421L	Analysis &Design of Algorithms Lab	1	0	0	2	2	50	50	100
4	ESC	22UIS406C	Discrete Mathematical Structures	3	2	2	0	4	50	50	100
5	AEC	22UIS422L	Technical writing using LATEX	1	0	0	2	2	50	50	100
6	BSC	22UBT408C	Biology for Computer Engineers	2	2	0	0	2	50	50	100
7	HSMC	22UHS424C	Universal human values course	1	1	0	0	1	50	50	100
8	MC	UHS002M	National Service Scheme	0	0	0	2	2	0	0	0
		22UBT408C	Physical Education (Sports and Athletics)								
		22UHS424C	Yoga								
9	-	AAP	AICTE Activity Points	-	-	-	-	-	-	-	-
Total				19	14	2	10	26	400	400	800

Sem.	BSC	ESC	HSMC	AEC	PCC	PEC	OEC	Proj.	Int.	Total
04	02	03	01	01	12					19

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5th Semester

Applicable to students admitted in AY 23-24 to 1stsem and through lateral entry in AY 24-25 to 3rdsem (3rd NEP Batch)

Sl.No.	Course			Credits	Teaching Hours/Week			Examination			
	Category	Code	Title		Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks
					L	T	P				
1	PCC	22UIS501C	Software Engineering	3	3	0	0	3	50	50	100
2	IPCC	22UIS502C	Computer Networks (Integrated)	3	2	0	2	4	50	50	100
3	IPCC	22UIS503C	Web Programming (Integrated)	3	2	0	2	4	50	50	100
4	PEC	22UISXXXE	Professional Elective Course – I	3	3	0	0	3	50	50	100
5	OEC	22UISXXXN	Open Elective Course - I	3	3	0	0	3	50	50	100
6	HSMC	22UBT523C	Environmental Studies	1	1	0	0	1	50	50	100
7	AEC	22UHS5XXC	Soft Skill	2	2	0	0	2	50	50	100
8	PROJ.	22UIS531P	Mini Project	2	0	0	2	2	50	50	100
9	MC	22UHS002M	National Service Scheme	0	0	0	2	2	0	0	0
		22UHS003M	Physical Education(Sports and Athletics)								
		22UHS001M	Yoga								
10	-	AAP	AICTE Activity Points	-	-	-	-	-	-	-	-
Total				20	16	0	8	24	400	400	800

Sem.	BSC	ESC	HSMC	AEC	PCC	PEC	OEC	Proj.	Int.	Total
5			01	2 (SS)	09	03	03	02		20

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6th Semester

Applicable to students admitted in AY 23-24 to 1stsem and through lateral entry in AY 24-25 to 3rdsem (3rd NEP Batch)

Sl.No.	Course			Credits	Teaching Hours/Week			Examination			
	Category	Code	Title		Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks
1	IPCC	22UIS601C	Full Stack Development (Integrated)	3	2	0	2	4	50	50	100
2	IPCC	22UIS602C	Object Oriented Modelling and Design (Integrated)	3	2	0	2	4	50	50	100
3	PCC	22UIS603C	Machine Learning	3	3	0	0	3	50	50	100
4	PCCL	22UIS681L	Machine Learning Laboratory	1	0	0	2	2	50	50	100
5	PCC	22UIS604C	Theory of Computations	3	2	2	0	4	50	50	100
6	AEC	22UHS600C	Indian Knowledge Systems	1	1	0	0	1	50	50	100
7	PEC	22UIS6XXE	Professional Elective Course - II	3	3	0	0	3	50	50	100
8	OEC	22UIS6XXN	Open Elective Course - II	3	3	0	0	3	50	50	100
9	PROJ.	--	Pre-Project Work	0	0	0	0	0	0	0	0
10	MC	22UHS002M	National Service Scheme	0	0	0	2	0	0	0	0
		22UHS003M	Physical Education(Sports and Athletics)								
		22UHS001M	Yoga								
11	--	AAP	AICTE Activity Points	-	-	-	-	-	-	-	-
Total				20	16	2	8	26	400	400	800

Note:Pre-Project Work – 1) Batch Formulation, 2) Project Allocation and Guide Allotment, 3) Problem Identification and Formulation, and 4) Literature Survey – Minimum 10 papers are to be surveyed.

Sem.	BSC	ESC	HSSM	AEC	PCC	PEC	OEC	Proj.	Int.	Total
6				01	13	03	03			20

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7th Semester

Applicable to students admitted in AY 23-24 to 1stsem and through lateral entry in AY 24-25 to 3rdsem (3rd NEP Batch)

Sl.No.	Course			Credits	Teaching Hours/Week			Examination			
	Category	Code	Title		Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks
					L	T	P				
1	HSMC	22UHS700C/22UHS800C	Research Methodology and IPR	3	3	0	0	3	50	50	100
2	IPCC	22UIS701C/22UIS801C	Big Data Analytics (Integrated)	3	2	0	2	4	50	50	100
3	PEC	22UISXXXE	Professional Elective Course– III (Integrated)	3	2	0	2	4	50	50	100
4	PEC	22UISXXXE	Professional Elective Course - IV	3	3	0	0	3	50	50	100
5	PROJ.	22UIS717P/22UIS817P	Project	12	0	0	12	12	50	50	100
Total				24	10	0	16	26	250	250	500

Sem.	BSC	ESC	HSMC	AEC	PCC	PEC	OEC	Proj.	Int.	Total
7			03		03	06		12		24

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8th Semester

Applicable to students admitted in AY 23-24 to 1stsem and through lateral entry in AY 24-25 to 3rdsem (3rd NEP Batch)

Sl.No.	Course			Credits	Teaching Hours/Week			Examination			
	Category	Code	Title		Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks
					L	T	P				
1	AEC	22UISXXXO	MOOCS	3	3	0	0	3	50	50	100
2	OEC	22UISXXXO	MOOCS	3	3	0	0	3	50	50	100
3	INT.	22UIS808I/ 22UIS708I	Internship	10	0	0	10	10	50	50	100
Total				16	6	0	10	16	150	150	300

Sem.	BSC	ESC	HSSM	AEC	PCC	PEC	OEC	Proj.	Int.	Total
8				3 (MOOCS)			3 (MOOCS)		10	16