S.A.ENGINEERING COLLEGE,CHENNAI-77
AUTONOMOUS INSTITUTION
REGULATIONS 2020A
CHOICE BASED CREDIT SYSTEM
B.E. –Electronics Engineering (VLSI Design and Technology)

I.Vision

To emerge as a Centre of Excellence in Electronics Engineering promoting research and innovation inculcating highest professional and ethical standards

II.Mission

M1: To impart quality technical education delivering state of the art technologies and research bin frontier areas to meet the growing challenges

M2: To provide conducive learning environment to promote interdisciplinary interaction teamwork among the students contributing to the progress of the nation

III. Programme Educational Objectives

PEO1: Graduates educate and train with knowledge and skills necessary to formulate, design and solve problems in analog, digital and mixed signal VLSI system design, VLSI signal processing and semiconductor technologies

PEO2: Graduates provide scope for applied research and innovation in the various fields of VLSI and enabling the students to work in the emerging sectors associated with VLSI domain

PEO3: Graduates apply their subject knowledge, communication skills and leadership qualities to build their chosen career in the area of VLSI design and technology

PEO4: Graduates exhibit ethical attitude and sensitivity to social, environmental and economic issues in their professional activities

IV. Program Outcomes

PO 1.	***Engineering knowledge:*** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2.	***Problem analysis:*** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3.	***Design/development of solutions***: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO 4.	***Conduct investigations of complex problems***: Use research-based knowledge and research methods including design of experiments, analysis

and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5. *Modern tool usage*: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO 6. *Engineer and society*: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7. *Environment and sustainability*: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8. *Ethics:* Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9. *Individual and team work*: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10. *Communication:* Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11. *Project management and finance*: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12. *Life-long learning*: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

V. Program Specific Outcomes

PSO1: Graduates will be able to apply advanced concepts in physics of semiconductor devices to design VLSI system

PSO2: Graduates will be able to design and develop VLSI circuits to optimize power and area requirements free from faults and dependencies by modelling, simulation and testing

PSO3: Graduates will be able to solve research gaps and provide solutions to socio-economic and environmental problems using standard tools.

MAPPING OF PROGRAMME EDUCATIONAL OBJECTIVES WITH PROGRAMME OUTCOMES

A broad relation between the programme objective and the outcomes is given in the following table

PROGRAMME EDUCATIONAL OBJECTIVES	PROGRAMME OUTCOMES											
	1	2	3	4	5	6	7	8	9	10	11	12
1	3	3	2	3	2	1	1	2	1	1	3	1
2	3	3	3	3	3	1	1	1	1	1	1	2
3	3	3	3	3	3	2	2	3	1	2	2	2
4	3	3	3	3	3	2	2	3	1	2	2	2

MAPPING OF PROGRAM SPECIFIC OBJECTIVES WITH PROGRAMME OUTCOMES

A broad relation between the Program Specific Objectives and the outcomes is given in the following table

PROGRAM SPECIFIC OBJECTIVES	PROGRAMME OUTCOMES											
	1	2	3	4	5	6	7	8	9	10	11	12
1	3	3	2	3	2	1	1	1	1	1	1	2
2	3	3	3	3	3	2	2	3	1	3	3	3
3	3	3	3	3	3	3	3	2	1	1	1	3

S.A.ENGINEERING COLLEGE
B.E. ELECTRONICS ENGINEERING
(VLSI DESIGN AND TECHNOLOGY)
REGULATIONS – 2020A
CHOICE BASED CREDIT SYSTEM

MAPPING OF COURSE OUTCOMES WITH PROGRAMME OUTCOMES:

A broad relation between the Course Outcomes and Programme Outcomes is given in the following table

Sem	Course Name	1	2	3	4	5	6	7	8	9	10	11	12
I	Technical English	√	√							√	√	√	√
	Calculus and its Applications	√	√	√	√							√	√
	Applied Physics	√	√	√	√							√	√
	Engineering Chemistry	√	√	√	√	√	√	√	√			√	√
	Problem Solving and Python Programming	√	√	√	√	√	√					√	√
	Indian Constitution	√	√	√	√							√	√
	தமிழரும் தொழில்நுட்பமும் /Tamils and Technology	√	√	√	√	√	√					√	√
	Problem Solving and PythonProgramming Laboratory	√	√	√	√							√	√
	Physics and Chemistry Laboratory						√	√		√	√	√	√
	Engineering Practices Laboratory						√	√		√	√	√	√
II	English for Communication	√	√							√	√	√	√
	Complex Variables And Transforms	√	√	√	√							√	√
	Material Science	√	√	√	√							√	√
	Environmental Science and Engineering	√	√	√	√	√	√					√	√
	Basic Electrical and Instrumentation Engineering	√	√	√	√	√	√	√	√		√		√
	Programming in C	√	√	√	√								√
	Engineering Graphics	√	√	√	√							√	√
	தமிழர் மரபு /Heritage of Tamils	√	√	√	√	√						√	√
	Programming in C Laboratory	√	√	√									√
III	Probability theory and Stochastic Processes	√	√	√	√	√						√	√
	Object Oriented Programming	√	√	√	√	√							√
	Digital Electronics	√	√	√	√	√	√	√				√	√
	Electric Circuits and Networks Analysis	√	√	√	√	√	√					√	√
	Signals and Systems	√	√	√									
	Electronic Devices	√	√	√			√						√
	Digital system design laboratory	√	√	√	√	√	√						√
	Electronic Devices and Circuits Laboratory	√	√	√	√	√	√	√					√
	Interpersonal Skills / Listening & Speaking						√		√	√	√	√	√
IV	Analog Circuits	√	√	√	√							√	√
	Numerical Techniques	√	√	√	√							√	√
	Control Systems	√	√	√	√	√	√	√	√				√
	Microprocessor and Microcontroller	√	√	√	√							√	√
	Analog and Digital Communication	√	√	√	√	√							√
	Universal Human Values						√	√	√				√

Sem	Course Name	1	2	3	4	5	6	7	8	9	10	11	12
	COURSE OUTCOMES						**PROGRAMME OUTCOMES**						
	Analog Circuits Laboratory	√	√	√	√	√	√					√	√
	Microcontroller Laboratory	√	√	√	√	√	√					√	√
	Analog Circuits Laboratory	√	√	√	√	√	√	√	√	√	√	√	√
V	Digital Signal Processing	√	√	√									
	Electromagnetic Waves	√	√	√	√	√	√					√	√
	MOS VLSI Design	√	√	√	√	√	√			√		√	√
	Wireless Communication	√	√	√	√	√	√					√	√
	Professional Elective I												
	Open Elective I												
	Digital Signal Processing Laboratory	√	√	√	√	√	√					√	√
	HDL Programming Laboratory	√	√	√	√	√	√					√	√
VI	VLSI Verification and Testing	√	√	√	√								√
	CMOS Analog IC Design	√	√	√	√								√
	CAD for VLSI	√	√	√	√		√	√					√
	Machine Learning for IC Design	√	√	√	√	√	√					√	√
	Principles of Management	√	√	√	√								√
	Analog and Digital VLSI design Laboratory	√	√	√	√	√							√
	Mini Project	√	√	√	√	√							√
VII	ASIC Design	√	√	√	√		√		√			√	√
	VLSI Architecture for Signal Processing	√	√	√	√		√					√	√
	Low Power VLSI	√	√	√	√	√	√	√					√
	Statistical Analysis and Optimization for VLSI	√	√	√	√	√	√			√	√	√	√
	Professional Elective -II												
	Open Elective - II												
	ASIC Design Laboratory	√	√	√	√	√	√	√	√				√
	Internship(Industry/Research)	√	√	√	√	√	√	√		√			√
VIII	Professional Elective - III												
	Professional Elective - IV												
	Project Work	√	√	√	√	√	√		√	√	√	√	√

S.A.ENGINEERING COLLEGE,CHENNAI-77

B.E. –Electronics Engineering (VLSI Design and Technology)

CHOICE BASED CREDIT SYSTEM
SEMESTER I

Sl.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	HS1101A	Technical English	HS	3	3	0	0	3
2.	MA1101A	Calculus and its Applications	BS	4	3	1	0	4
3.	PH1101A	Applied Physics	BS	3	3	0	0	3
4.	CY1101A	Engineering Chemistry	BS	3	3	0	0	3
5.	CS1101A	Problem Solving and Python Programming	ES	3	3	0	0	3
6.	CI1101A	Indian Constitution	MC	2	2	0	0	0
7.	TA1101A	தமிழரும் தொழில்நுட்பமும் /Tamils and Technology	HS	1	1	0	0	1
PRACTICALS								
8.	CS1102A	Problem Solving and Python Programming Laboratory	ES	4	0	0	4	2
9.	BS1101A	Physics and Chemistry Laboratory	BS	4	0	0	4	2
10.	GE1201A	Engineering Practices Laboratory	BS	4	0	0	4	2
			TOTAL	**31**	**18**	**1**	**12**	**23**

SEMESTER II

Sl.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	HS1201A	English for Communication	HS	3	3	0	0	3
2.	MA1201A	Complex Variables And Transforms	BS	4	3	1	0	4
3.	PH1201A	Materials Science	BS	3	3	0	0	3
4.	CY1201A	Environmental Science and Engineering	ES	2	2	0	0	0
5.	EE1203A	Basic Electrical and Instrumentation Engineering	ES	3	3	0	0	3
6.	CS1201A	Programming in C	ES	3	3	0	0	3
7.	ME1101A	Engineering Graphics	BS	3	3	0	0	3
8.	TA1201A	தமிழர் மரபு /Tamizhar Marabu	HS	1	1	0	0	1
PRACTICALS								
9.	CS1203A	Programming in C Laboratory	ES	4	0	0	4	2
			TOTAL	**26**	**21**	**1**	**4**	**22**

SEMESTER III

Sl.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	MA1306A	Probability theory and Stochastic Process	BS	4	3	1	0	4
2.	IT1301A	Object Oriented Programming	ES	3	3	0	0	3
3.	VL1301A	Digital Electronics	PC	3	3	0	0	3
4.	VL1302A	Electric Circuits and Network Analysis	PC	3	3	0	0	3
5.	VL1303A	Signals and Systems	PC	3	3	1	0	4
6.	VL1304A	Electronic Devices	PC	3	3	0	0	3
PRACTICALS								
7.	VL1305A	Digital system design laboratory	PC	4	0	0	4	2
8.	VL1306A	Electronic Devices and Circuits Laboratory	PC	4	0	0	4	2
9.	HS1301A	Interpersonal Skills Laboratory	HS	2	0	0	2	1
			TOTAL	29	18	2	10	25

SEMESTER IV

Sl.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	VL1401A	Analog Circuits	PC	3	3	0	0	3
2.	MA1407A	Numerical Techniques	BS	3	3	0	0	4
3.	VL1402A	Control Systems	PC	3	3	0	0	3
4.	VL1403A	Microprocessor and Microcontroller	PC	3	3	0	0	3
5.	VL1404A	Analog and Digital Communication	PC	3	3	0	0	3
6.	HV1401A	Universal Human Values	HS	3	3	0	0	3
PRACTICALS								
6.	VL1405A	Analog Circuits Laboratory	PC	4	0	0	4	2
7.	VL1406A	Microcontroller Laboratory	PC	4	0	0	4	2
			TOTAL	26	18	0	8	22

SEMESTER V

Sl.No	COURSECODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	VL1501A	Digital Signal Processing	PC	3	3	1	0	4
2.	VL1502A	Electromagnetic Waves	PC	3	3	0	0	3
3.	VL1503A	MOS VLSI Design	PC	3	3	0	0	3
4.	VL1504A	Wireless Communication	PC	3	3	0	0	3
5.		PE-I(Professional Elective)	PE	3	3	0	0	3
6.		OE –I (Open Elective)	OE	3	3	0	0	3
PRACTICALS								
7.	VL1505A	Digital Signal Processing Laboratory	PC	4	0	0	4	2
8.	VL1506A	HDL Programming Laboratory	PC	4	0	0	4	2
			TOTAL	**26**	**18**	**1**	**8**	**23**

SEMESTER VI

Sl. No	COURSECODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	VL1601A	VLSI Verification and Testing	PC	3	3	0	0	3
2.	VL1602A	CMOS Analog IC Design	PC	3	3	0	0	3
3.	VL1603A	CAD for VLSI	PC	3	3	0	0	3
4.	VL1604A	Machine Learning for IC Design	PC	5	3	0	2	4
5.	MG1601A	Principles of Management	HS	3	3	0	0	3
6.		PE-II	PE	3	3	0	0	3
PRACTICALS								
7.	VL1605A	Analog and Digital VLSI design Laboratory	PC	4	0	0	4	2
8.	VL1606A	Mini Project	EEC	4	0	0	4	2
			TOTAL	**28**	**18**	**0**	**10**	**23**

SEMESTER VII

Sl.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	VL1701A	ASIC Design	PC	3	3	0	0	3
2.	VL1702A	VLSI Architecture for Signal Processing	PC	3	3	0	0	3
3.	VL1703A	Low Power VLSI	PC	3	3	0	0	3
4.	VL1704A	Statistical Analysis and Optimization for VLSI	PC	3	3	0	0	3
5.		OE –II	OE	3	3	0	0	3
6.		PE- III	PE	3	3	0	0	3
PRACTICALS								
7.	VL1705A	ASIC Design Laboratory	PC	4	0	0	4	2
8.	VL1706A	Internship(Industry/Research)	EEC	6	0	0	6	3
			TOTAL	**28**	**18**	**0**	**10**	**23**

SEMESTER VIII

Sl.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.		PE-IV	PE	3	3	0	0	3
2.		PE-V	PE	3	3	0	0	3
PRACTICALS								
3.	VL1801A	Project Work	EEC	20	0	0	20	10
			TOTAL	**26**	**6**	**0**	**20**	**16**

TOTAL NO. OF CREDITS: 179

HUMANITIES AND SOCIAL SCIENCES (HS)

Sl. No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	HS1101A	Technical English	HS	3	3	0	0	3
2.	TA1101A	தமிழரும் தொழில்நுட்பமும் /Tamils and Technology	HS	1	1	0	0	1
3.	HS1201A	English for Communication	HS	3	3	0	0	3
4.	TA1201A	தமிழர் மரபு /Heritage of Tamils	HS	1	1	0	0	1
5.	HS1301A	Interpersonal Skills / Listening & Speaking	HS	2	0	0	2	0
6.	HV1401A	Universal Human Values	HS	3	3	0	0	3
7.	MG1601A	Principles of Management	HS	3	3	0	0	3

BASIC SCIENCES (BS)

Sl. No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	MA1101A	Calculus and its Applications	BS	4	3	1	0	4
2.	PH1101A	Applied Physics	BS	3	3	0	0	3
3.	CY1101A	Engineering Chemistry	BS	3	3	0	0	3
4.	BS1101A	Physics and Chemistry Laboratory	BS	4	0	0	4	2
5.	GE1201A	Engineering Practices Laboratory	BS	4	0	0	4	2
6.	MA1304A	Complex Variables And Transforms	BS	4	3	1	0	4
7.	PH1201A	Material Science	BS	3	3	0	0	3
8.	ME1101A	Engineering Graphics	BS	3	3	0	0	3
9.	MA1306A	Probability theory and Stochastic Processes	BS	4	3	1	0	4
10.	MA1407A	Numerical Techniques	BS	3	3	0	0	3

ENGINEERING SCIENCES(ES)

Sl. No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CS1101A	Problem Solving and Python Programming	ES	3	3	0	0	3
2.	CS1102A	Problem Solving and Python Programming Laboratory	ES	4	0	0	4	2
3.	CY1201A	Environmental Science and Engineering	ES	3	3	0	0	3
4.	EE1203A	Basic Electrical and Instrumentation Engineering	ES	3	3	0	0	3
5.	CS1201A	Programming in C	ES	3	3	0	0	3
6.	CS1203A	Programming in C Laboratory	ES	4	0	0	4	2
7.	IT1301A	Object Oriented Programming	ES	3	3	0	0	3

PROFESSIONAL CORE(PC)

Sl. No	COURSECODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	VL1301A	Digital Electronics	PC	3	3	0	0	3
2.	VL1302A	Electric Circuits and Networks Analysis	PC	3	3	0	0	3
3.	VL1303A	Signals and Systems	PC	3	3	1	0	4
4.	VL1304A	Electronic Devices	PC	3	3	0	0	3
5.	VL1305A	Digital system design laboratory	PC	4	0	0	4	2
6.	VL1306A	Electronic Devices and Circuits Laboratory	PC	4	0	0	4	2
7.	VL1401A	Analog Circuits	PC	3	3	0	0	3
8.	VL1402A	Control Systems	PC	3	3	0	0	3
9.	VL1403A	Microprocessor and Microcontroller	PC	3	3	0	0	3
10.	VL1404A	Analog and Digital Communication	PC	3	3	0	0	3
11.	VL1405A	Analog Circuits Laboratory	PC	4	0	0	4	2
12.	VL1406A	Microcontroller Laboratory	PC	4	0	0	4	2
13.	VL1501A	Digital Signal Processing	PC	3	3	1	0	4
14.	VL1502A	Electromagnetic Waves	PC	3	3	0	0	3
15.	VL1503A	MOS VLSI Design	PC	3	3	0	0	3
16.	VL1504A	Wireless Communication	PC	3	3	0	0	3
17.	VL1505A	Digital Signal Processing Laboratory	PC	4	0	0	4	2
18.	VL1506A	HDL Programming Laboratory	PC	4	0	0	4	2
19.	VL1601A	VLSI Verification and Testing	PC	3	3	0	0	3
20.	VL1602A	CMOS Analog IC Design	PC	3	3	0	0	3
21.	VL1603A	CAD for VLSI	PC	3	3	0	0	3
22.	VL1604A	Machine Learning for IC Design	PC	5	3	0	2	4
23.	VL1605A	Analog and Digital VLSI design Laboratory	PC	4	0	0	4	2
24.	VL1701A	ASIC Design	PC	3	3	0	0	3
25.	VL1702A	VLSI Architecture for Signal Processing	PC	3	3	0	0	3
26.	VL1703A	Low Power VLSI	PC	3	3	0	0	3
27.	VL1704A	Statistical Analysis and Optimization for VLSI	PC	3	3	0	0	3
28.	VL1705A	ASIC Design Laboratory	PC	4	0	0	4	2

PROFESSIONAL ELECTIVE I (PE)
SEMESTER V

SI.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	VL1507A	Computer Architecture And Organization	PE	3	3	0	0	3
2.	VL1508A	Semiconductor Devices And Modelling	PE	3	3	0	0	3
3.	VL1509A	Data Converters	PE	3	3	0	0	3
4.	VL1510A	Fundamentals of Nano Electronics	PE	3	3	0	0	3
5.	VL1511A	Embedded Systems and IOT	PE	3	3	0	0	3

PROFESSIONAL ELECTIVE II (PE)
SEMESTER VI

SI.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	VL1607A	Electro Magnetic Interference and Compatibility	PE	3	3	0	0	3
2.	VL1608A	Hardware software CO Design for FPGA	PE	3	3	0	0	3
3.	VL1609A	System on Chip	PE	3	3	0	0	3
4.	VL1610A	Semiconductor Memories	PE	3	3	0	0	3
5.	VL1611A	Reconfigurable Architecture	PE	3	3	0	0	3

PROFESSIONAL ELECTIVE III (PE)
SEMESTER VII

SI.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	VL1707A	IoT Processors	PE	3	3	0	0	3
2.	VL1708A	VLSI structures for DSP	PE	3	3	0	0	3
3.	VL1709A	Reliability in VLSI circuits	PE	3	3	0	0	3
4.	VL1710A	IP core Design and Protection	PE	3	3	0	0	3
5.	VL1711A	VLSI circuits for Biomedical Applications	PE	3	3	0	0	3

PROFESSIONAL ELECTIVE IV (PE)
SEMESTER VIII

SI.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	VL1802A	VLSI Interconnects	PE	3	3	0	0	3
2.	VL1803A	Advanced Semiconductor Devices	PE	3	3	0	0	3
3.	VL1804A	Mixed Signal IC Design	PE	3	3	0	0	3
4.	VL1805A	Network On Chip	PE	3	3	0	0	3
5.	VL1806A	Multicore Architecture and Programming	PE	3	3	0	0	3

PROFESSIONAL ELECTIVE V (PE)
SEMESTER VIII

SI.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	VL1807A	Wireless Sensor Network Design	PE	3	3	0	0	3
2.	VL1808A	IoT for Smart systems	PE	3	3	0	0	3
3.	VL1809A	VLSI Design for Wireless Communication	PE	3	3	0	0	3
4.	VL1810A	Power Management & clock Distribution	PE	3	3	0	0	3
5.	VL1811A	Cryptography and Network security	PE	3	3	0	0	3

EMPLOYABILITY ENHANCEMENT COURSES(EEC)

Sl. No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	VL1606A	Mini Project	EEC	4	0	0	4	2
2.	VL1706A	Internship(Industry/Research)	EEC	6	0	0	6	3
3.	VL1801A	Project Work	EEC	20	0	0	20	10

MANDATORY COURSE

Sl. No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CI1101A	Indian Constitution	MC	2	2	0	0	0

CREDITS SUMMARY

S.NO.	SUBJECT AREA	CREDITS AS PER SEMESTER								CREDITS TOTAL	Percentage
		I	II	III	IV	V	VI	VII	VIII		
1.	HS	4	4		3		3			14	7.82%
2.	BS	14	10	4	3					31	17.31%
3.	ES	5	11	3						19	10.05%
4.	PC			17	16	17	15	14		79	44.13%
5.	PE					3	3	3	6	15	8.37%
6.	OE					3		3		6	3.35%
7.	EEC						2	3	10	15	8.93%
	Total	23	25	24	22	23	23	23	16	179	100%