

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

B.Tech. Computer Science and Engineering & Business Systems

Proposed Curriculum – 2019 Batch

Sl.NO	Category	Total No. of Credits (2019 Batch)
1	University Core (UC)	52
2	Programme Core (PC)	72
3	University Elective (UE)	6
4	Programme Elective (PE)	30
	Total	160

University Core (52 Credits)

Sl. No.	Course Code	Course Title	L	T	P	J	C	Pre-req.	Category
1.	ENG1002	Effective English (Bridge Course)	0	0	4	0	Pass	-	
2.	ENG1011	English for Engineers	0	0	4	0	2	A Pass in VIT EPT or ENG1002	H
3.	CHY1002	Environmental Sciences	3	0	0	0	0	-	S
4.	CHY1701	Engineering Chemistry	3	0	2	0	4	-	S
5.	HUM1021	Ethics and Values	2	0	0	0	2	-	H
6.	FLC4097	Foreign Language	0	0	0	0	2	-	H
7.	MAT1xxx	Probability and Statistics	3	0	0	0	3	-	S
8.	PHY1xxx	Modern Physics	3	0	2	0	4	-	S
9.	ENG1xxx	Business Communication & Value Science – I	1	0	2	0	2	-	H
10.	ENG1xxx	Business Communication & Value Science – II	1	0	2	0	2	-	H
11.	CSE1xxx	Programming in C	3	0	2	0	4	-	E
12.	CSE2xxx	Object Oriented Programming	3	0	2	0	4	-	E
13.	CSE2xxx	Introduction to Innovation, IP Management and Entrepreneurship	3	0	0	0	3	-	M
14.	ENG3xxx	Business Communication & Value Science – III	1	0	2	0	2	-	H
15.	CSE3xxx	Technical Answers to Real World Problems	1	0	0	8	2	-	E
16.	CSE3xxx	Industrial Project	0	0	0	0	1	-	E
17.	ENG3xxx	Business Communication &	1	0	2	0	2	-	H

		Value Science – IV							
18.	CSE4xxx	Comprehensive Examination	0	0	0	0	1	-	E
19.	CSE4xxx	Capstone Project	0	0	0	0	12	-	E

PROGRAM CORE (72 Credits)

CSE Core (55 Credits)

Sl. No.	Course Code	Course Title	L	T	P	J	C	Pre-Req.	Category
1.	MAT1xxx	Discrete Mathematics	3	0	0	0	3	-	S
2.	EEE1001	Basic Electrical and Electronics Engineering	2	0	2	0	3	-	E
3.	MAT1xxx	Linear Algebra	3	1	0	0	4	-	S
4.	MAT2xxx	Data Science and Statistical Modeling	2	0	2	0	3	Probability & Statistics	E
5.	CSE1xxx	Data Structures & Algorithms	2	0	2	0	3	-	E
6.	CSE2xxx	Formal Languages and Automata Theory	3	0	0	0	3	-	E
7.	CSE2xxx	Computer Organization & Architecture	2	0	2	0	3	-	E
8.	CSE2xxx	Computational Statistics	2	0	2	0	3	-	E
9.	CSE2xxx	Software Engineering Methodologies	2	0	2	0	3	-	E
10.	CSE2xxx	Principles of Operating Systems	2	0	2	0	3	-	E
11.	CSE2xxx	Database Systems	2	0	2	0	3	-	E
12.	CSE2xxx	Design Thinking	2	0	2	0	3	-	E
13.	CSE3xxx	Design and Analysis of Algorithms	2	0	2	0	3	-	E
14.	CSE3xxx	Computer Networks	2	0	2	0	3	-	E
15.	CSE3xxx	Information Security	2	0	2	0	3	-	E
16.	CSE3xxx	Artificial Intelligence	2	0	2	0	3	-	E
17.	CSE4xxx	Usability Design of Software Applications	2	0	2	0	3	-	E
18.	CSE4xxx	IT Project Management	2	0	2	0	3	-	E

Business Systems Core (17 Credits)

Sl. No.	Course Code	Course Title	L	T	P	J	C	Pre-Req.	Category
1.	MAT2xxx	Operations Research	2	0	2	0	3	-	M
2.	BMT3xxx	Fundamentals of Management	2	0	0	0	2	-	M
3.	BMT3xxx	Financial and Cost Accounting	3	0	0	0	3	-	M
4.	BMT3xxx	Financial Management	3	0	0	0	3	-	M

5.	BMT4xxx	Services Science & Service Operational Management	2	0	2	0	3	-	M
6.	BMT4xxx	Marketing Research & Marketing Management	3	0	0	0	3	-	M

Program Elective Courses (30 Credits)

CSE Electives (Minimum 15 credits)

Sl. No.	Course Code	Course Title	L	T	P	J	C	Pre-Req.	Category
1.	CSE3xxx	Conversational Systems	3	0	0	0	3	-	E
2.	CSE3xxx	Cloud, Microservices & Applications	3	0	2	0	4	-	E
3.	CSE3xxx	Machine Learning	2	0	2	4	4	-	E
4.	CSE3xxx	Information Systems Audit and Control	3	0	0	0	3	-	E
5.	CSE3xxx	Modern Web Applications	3	0	2	0	4	-	E
6.	CSE3xxx	Data Mining and Analytics	3	0	0	4	4	-	E
7.	CSE3xxx	Robotics and Embedded Systems	3	0	0	4	4	-	E
8.	CSE4xxx	Cognitive Science & Analytics	3	0	2	0	3	-	E
9.	CSE4xxx	Introduction to IoT	3	0	0	4	4	-	E
10.	CSE4xxx	Cryptology and Analysis	3	0	0	0	3	-	E
11.	CSE4xxx	Quantum Computation & Quantum Information	3	0	2	0	4	-	E
12.	CSE4xxx	Advanced Social, Text and Media Analytics	3	0	0	0	3	-	E
13.	CSE4xxx	Mobile Computing	3	0	0	4	4	-	E
14.	CSE4xxx	Image Processing and Pattern Recognition	3	0	0	4	4	-	E

Business Systems Electives (Minimum 6 credits)

Sl. No.	Course Code	Course Title	L	T	P	J	C	Pre-Req.	Category
1.	MGT1xxx	Engineering Economics	2	0	0	0	3	-	M
2.	MGT2xxx	Business Strategy	2	0	0	0	3	-	M
3.	HUM3xxx	Behavioral Economics	3	0	0	0	3	-	M
4.	MGT3xxx	Psychology	3	0	0	0	3	-	M
5.	MGT3xxx	Enterprise Systems	3	0	0	0	3	-	M
6.	MGT3xxx	Advanced Finance	3	0	0	0	3	-	M
7.	MGT3xxx	Human Resource Management	2	0	0	0	3	-	M
8.	MGT3xxx	Computational Finance & Modeling	3	0	2	0	4	-	M

University Electives (6 Credits)

Notations: L – Lecture, T – Tutorial, P – Practical, J – Project, C- Credits

Note:

1. Choosing UE Course: A student can choose any course offered in any school or in any B.Tech./M.Tech. programme of VIT as a University Elective course, provided the chosen course is neither listed in UC/PC/PE nor similar to any course listed in UC/PC/PE of this programme. Please discuss with your proctor/HoD before you choose UE courses. If a student wishes to choose M.Tech. course as UE, then they should maintain their $CGPA \geq 8.0$.
2. B.Tech. (Hons) degree: A student is eligible to get B.Tech(Hons) degree if the student earns extra 20 credits from the program elective courses in addition to 160 credits required for B.Tech degree.