VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

B.Tech Computer Science and Engineering
Curriculum for 2015 batch

Sl.NO	Category	Total No. of Credits (2015 and 2016 batch)	Total No. of Credits (2017 batch onwards)
1	University Core (UC)	72	70
2	Programme Core (PC)	58	58
3	University Elective (UE)	12	12
4	Programme Elective (PE)	38	40
	Total	180	180

University Core [72 Credits]

L – Lecture T- Tutorial P- Practical J- Project C- Credits E – Engineering
S – Science H – Humanities M - Management

Sl.No	Course Code	Course Title	L	T	P	J	C	Category
1.	CSE1001	Problem Solving and Programming	0	0	6	0	3	E
2.	CSE1002	Problem Solving with Object Oriented Programming	0	0	6	0	3	E
3.	CSE3999	Technical Answers for Real World Problems (TARP)	1	0	0	8	3	E
4.	CSE4098	Comprehensive Exam	0	0	0	0	2	E
5.	MAT1011	Calculus for Engineers	3	0	2	0	4	S

6.	MAT2001	Statistics for Engineers	2	1	2	0	4	S
7.	PHY1001	Engineering Physics	3	0	2	4	5	S
8.	CHY1001	Engineering Chemistry	3	0	2	4	5	S
9.	PHY1999	Introduction to Innovative Projects	1	0	0	4	2	S
10.	CHY1002	Environmental Science	3	0	0	0	3	S
11.	ENG1011	English for engineers	0	0	4	0	2	H
12.	FLC	Foreign Language	2	0	0	0	2	H
13.	HUM1021	Ethics and Values	2	0	0	0	2	H
14.	EXC	Co / Extra Curricular	0	0	0	0	2	M
15.	MGT1022	Lean Start-up Management	1	0	0	4	2	M
16.	STS	Soft Skills #	3	0	0	0	1	H
17.	CSE4099	Project Work	0	0	0	0	20	E
18.	CSE3099	Industrial Internship	0	0	0	0	2	E

 # Soft Skills –Totally 6 Credits

Engg. [33 Credits]+Sci. [23 Credits]+Humanities [12 Credits]+ Mgt. [4 Credits] = 72 Credits

University Elective [12 Credits]

Course Code	Course Title	Category
	University Elective - I	S
	University Elective – II	S
	University Elective - III	M
	University Elective – IV	H

Science [6 Credits] + Humanities [3 Credits] + Management [3 Credits] = 12 Credits

Program Core – [58 Credits]

Sl.No	Course Code	Course Title	L	T	P	J	C	Category
1.	MAT2002	Applications of Differential and Difference Equations	3	0	2	0	4	S
2.	MAT1014	Discrete Mathematics and Graph Theory	3	1	0	0	4	S
3.	MAT3004	Applied Linear Algebra	3	1	0	0	4	S

4.	EEE1001	Basic Electrical and Electronics Engineering	2	0	2	0	3	E
5.	CSE1003	Digital Logic and Design	2	0	2	4	4	E
6.	CSE2001	Computer Architecture and Organization	3	0	0	0	3	E
7.	CSE2002	Theory of Computation & Compiler Design	3	0	0	4	4	E
8.	CSE2003	Data Structures and Algorithms	2	0	2	4	4	E
9.	CSE1004	Network and Communication	2	0	2	4	4	E
10.	CSE2004	Database Management System	2	0	2	4	4	E
11.	CSE3001	Software Engineering	2	0	2	4	4	E
12.	CSE2005	Operating Systems	2	0	2	4	4	E
13.	CSE4001	Parallel and Distributed Computing	2	0	2	4	4	E
14.	CSE3002	Internet and Web Programming	2	0	2	4	4	E
15.	CSE2006	Microprocessor and Interfacing	2	0	2	4	4	E

Science [12 Credits] + Engineering [46 Credits] = 58 Credits

Program Elective– [38 Credits]

Course Code	Course Title	Category
	Program Elective – I	E
	Program Elective – II	E
	Program Elective – III	E
	Program Elective – IV	E
	Program Elective – V	E
	Program Elective – VI	E
	Program Elective – VII	E
	Program Elective – VIII	E
	Program Elective – IX	M
	Program Elective – X	H

LIST OF PROGRAM ELECTIVES [38 Credits]

Engineering

Sl.No	Course Code	Course Title	L	T	P	J	C	category
1.	CSE4003	Cyber Security	3	0	0	4	4	E
2.	CSE4004	Digital forensics	3	0	0	4	4	E
3.	CSE4011	Virtualization	3	0	0	4	4	E
4.	CSE3006	Embedded System Design	3	0	0	4	4	E
5.	CSE4014	High Performance Computing	3	0	0	4	4	E
6.	CSE4015	Human Computer Interaction	3	0	0	4	4	E
7.	CSE3009	Internet of Things	3	0	0	4	4	E
8.	CSE3011	Robotics and its Applications	3	0	0	4	4	E
9.	CSE3013	Artificial Intelligence	3	0	0	4	4	E
10.	CSE3016	Computer Graphics and Multimedia	2	0	2	4	4	E
11.	CSE3018	Content Based Image and Video retrieval	2	0	2	4	4	E
12.	CSE3020	Data Visualization	2	0	2	4	4	E
13.	CSE4019	Image Processing	3	0	0	4	4	E
14.	CSE4020	Machine Learning	2	0	2	4	4	E
15.	CSE4022	Natural language processing	3	0	0	4	4	E
16.	CSE3021	Social and Information Networks	3	0	0	4	4	E
17.	CSE3024	Web Mining	3	0	0	4	4	E
18.	CSE3025	Large Scale Data Processing	2	0	2	4	4	E
19.	CSE3029	Game Programming	2	0	2	4	4	E
20.	CSE4027	Mobile Programming	2	0	2	4	4	E
21.	CSE4028	Object oriented software development	2	0	2	4	4	E
22.	MGT1004	Resource Management	2	0	0	4	3	M
23.	MGT1010	Total Quality Management	2	0	0	4	3	M
24.	MGT1011	Accounting for Engineers	2	0	0	4	3	M