School of Engineering and Applied Sciences

B. Tech Computer Science and Engineering

AY: 2018-2019

Department of Computer Science Engineering
SRM University-AP, Amaravati

Department of Computer Science Engineering
SRM University-AP

Semester I

CODE	COURSE NAME	CREDIT	L - T - P
ENL101 (HS)	Communicative English	3	3-0-0
MAT112 (BS)	Single Variable Calculus	3	3-0-0
CHE101 (BS)	Principles of Chemistry	3	2-0-2
HSE	Humanities Elective	3	3-0-0
CSE102	Introduction to Computer Science and Programming	4	3-0-2
ECO 121 (HS)	Principles of Economics	3	3-0-0
CDC1002	Soft Skills 1	1	1-0-0
	Total	20	18-0-4

Semester II

CODE	COURSE NAME	CREDIT	L - T – P
BS	Multi variable Calculus	3	3-0-0
BS	Biology	3	2-0-2
ES	Engineering Fundamentals	3	3-0-0
BS	Electricity and Magnetism	3	2-0-2
CSEC	Data Structures and Algorithms	4	3-0-2
ES	Basic Electronics	4	3-0-2
HS	Soft Skills 2	1	1-0-0
	Total	21	

Semester III

CODE	COURSE NAME	CREDIT	L - T – P
BS	Linear Algebra	3	3-0-0
BS	Classical Mechanics	3	2-0-2
CSEC/ES	Environmental Science	3	3-0-0
CSE 201	Design and Analysis of Algorithms	4	3-0-2
CSEC	Digital Design	4	3-0-2
CDC	Soft Skills 3	1	1-0-0
	Total	17	15-0-6

Semester IV

CODE	COURSE NAME	CREDIT	L - T – P
CSEC/ES	Discrete Mathematics	3	3-0-0
ES	Probability and Statistics	3	3-0-0
CSE202	Web Technology	4	3-0-2
CSE203	Formal Languages and Automata Theory	3	3-0-0
CSE204	Computer Organization and Architecture	3	3-0-0
CSE205	Object Oriented Programming	4	3-0-2
CDC	Soft Skills 4	1	1-0-0
CCC	Industry Standard Coding Practice -2	2	0-0-4
	Total	22	18-0-8

Semester V

CODE	COURSE NAME	CREDIT	L - T – P
BS	Differential Equations	3	3-0-0
CSEC	Operating Systems	4	3-0-2
CSEC	Compiler Design	4	3-0-2
CSEC	Computer Networks	4	3-0-2
CSESE	CS Stream Elective 1	4	3-0-2
OE	Open Elective -1	3	3-0-0
CCC	Industry Standard Coding Practice -3	2	0-0-4
CDC	Soft Skills 5	P/F	0-0-0
	Total	24	18-0-12

Semester VI

CODE	COURSE NAME	CREDIT	L - T – P
CSEC	Database Management Systems	4	3-0-2
CSEC	Software Engineering	4	3-0-2
CSESE	CS Stream Elective 2	4	3-0-2
CSETE	CS Technical Elective- 1	3	3-0-0
OE	Open Elective -2	3	3-0-0
PR	UROP	3	0-0-6
CCC	Industry Standard Coding Practice -4	P/F	0-0-4
	Total	21	15-0-16

Semester VII

CODE	COURSE NAME	CREDIT	L - T – P
CSESE	CS Stream Elective 3	4	3-0-2
CSETE	CS Technical Elective 2	3	3-0-0
OE	Open Elective- 3	3	3-0-0
OE	Open Elective - 4	3	3-0-0
PR	Capstone Project Phase – I	6	0-0-12
	Total	19	12-0-14

Semester VIII

CODE	COURSE NAME	CREDIT	L - T – P
CSESE	CS Stream Elective 4	4	3-0-2
OE	Open Elective 5	3	3-0-0
PR	Capstone Project – Phase II	6	0-0-12
	Total	13	6-0-14

Specialization Streams

1. **Artificial Intelligence and Machine Learning**
    a. Introduction to Machine Learning
    b. Principle of Soft Computing
    c. Visual Information Processing
    d. Artificial Intelligence

2. **Cyber Security**
    a. Network Security
    b. Mobile and Wireless Security
    c. Internet Protocols and Networking
    d. Introduction to Cryptography

3. **Big Data Analytics**
    a. Introduction to Data Science
    b. Big Data
    c. Machine Learning
    d. Inference and Representation

4. **IoT**
    a. Internet of Things: Sensing and Actuator Devices
    b. IoT Architecture and Protocols
    c. Privacy and Security in IoT
    d. Data Management in IoT

5. Distributed and Cloud Computing

a. Distributed Systems
b. Introduction to Cloud and Fog Computing
c. Data Storage and Management in Cloud
d. Application Development in Cloud

General Computer Science Electives

1. Data and Web Mining
2. Natural Language Processing
3. Image Processing
4. Human Computer Interaction
5. Advanced Computer Architecture
6. Distributed Operating Systems
7. Fog Computing

8. Parallel Algorithms
9. Web Services
10. Advanced Database Management Systems
11. Complexity Theory
12. Computer Graphics and Multimedia
13. Advanced Data Structures and Algorithms
14. High Performance Computing
15. Numerical Methods

Minor Programme

CSE Dept. offers Minor in Computer Science and curriculum is given below.

		L-T-P
1.	Object oriented programing with Java	3-0-2 (4 credits)
2.	Algorithm Analysis and Design	3-0-2 (4 credits)
3.	Web Technology	3-0-2 (4 credits)
4.	Database Management Systems	3-0-2 (4 credits)
5.	Software Engineering	3-0-2 (4 credits)