B.Sc. Computer Data Science and Data Analytics Engineering (2026-29) (Choice-Based Credit System)

Year	Sem	Course-1	Course-2	Course-3	Course-4	Course-5	Course-6	Course-7		Hours	Credits	
I	I	(AEC-I) General English-I (5)	(AEC-2) Value Education & Personality Development (2)	(DSC-1) Operating System (4+1)	(DSC-2) Differential and Vector Calculus (4)	(DSC-3) Programming for Problem Solving using Python (4+1)	(DSC-4) Essentials of Data Science and Analytics (3+1)			30	25	AEC=2 DSC=4
	II	(AEC-3) General English-II (5)	(AEC-4) Indian Heritage and Culture (2)	(DSC-5) Matrix Algebra and Number Theory (4)	(DSC-6) R Programming (3+1)	(DSC-7) Descriptive Statistics and Probability Distributions (4+1)	(DSC-8) Data Structures and Algorithms using Python (4+1)		PLANET (Non CGPA) (1)*	30	25	AEC=2 DSC=4
II	III	(AEC-5) General English-III (5)	(AEC-6) EVS (3)	(GE-1) Generic Elective Python Programming (2+1)	(DSC-9) Data Base Management Systems (4+1)	(DSC-10) Statistical Methods and Inference (4+1)	(DSC-11) Software Engineering (3)		(SEC-1) Short Term Internship (2)	30	26	AEC=2 GE(ID)=1 DSC=3 SEC=1
	IV	(AEC-7) General English-IV (5)	(SEC-2) Data Visualization Using Excel and Power BI (1)	(DSC-12) Advanced Application Development using pySpark (3)	(DSC-13) Java Programming (4+1)	(DSC-14) Optimization Methods for Analytics (4)	(DSC-15) Data Engineering with Python (4+1)	(DSC-16) Artificial Intelligence for Data Science (3)		30	26	AEC=1 SEC=1 DSC=5
III	V	(DSC-17) Machine Learning Techniques (4+1)	(DSC-18) Applied Statistics (5)	(DSC-19) Generative AI (4)	(DSC-20) Big Data Analytics (4+1)	(DSE-1) Data Security / Cloud Computing (4)	(DSE-2) Text Data Analytics / Data Analytics and Decision Making (4)			30	27	DSC=4 DSE=2
	VI	(DSC-21) Deep Learning (4+1)	(DSE-3) AI Applications for Business Analytics /Natural Language Processing (4)	(DSE-4) Quantum Computing/Human Computer Interaction (4)	Major Project (6) 15hrs+1hr Review					30	19	DSC=1 DSE=2

Legend:					
1. Ability Enhancement Course (AEC)	: 07	Total		180	148	
2. Generic Elective (GE)(ID)	: 01					
3. Skill Enhancement Course (SEC)	: 02					
4. Discipline-Specific Core (DSC)	: 21					
5. Discipline-Specific Elective (DSE)	: 04					

PROFESSOR
Department of Computer Science & Engineering
University College of Engineering (A)
Osmania University,
Hyderabad-500 007.