

Faculty of Science and Technology
Savitribai Phule Pune University
Maharashtra, India



Syllabus Structure
Master of Computer Engineering
(Data Science)
(Course 2020)
(With effect from 2020-21)

Savitribai Phule Pune University, Pune
Master of Computer Engineering (Data Science) (2020 Course)
(with effect from A.Y. 2020-21)

Semester I

Course Code	Course	Teaching Scheme Hours / Week		Examination Scheme and Marks					Credit		
		Theory	Practical	In-Sem	End-Sem	TW	OR/PRE	Total	TH	TW	PR
510301	Mathematical Foundations for Data Science	03	--	50	50	--	--	100	03	--	--
510302	Data Science	03	--	50	50	--	--	100	03	--	--
510303	Big Data Analytics	03	--	50	50	--	--	100	03	--	--
510304	Research Methodology	03	--	50	50	--	--	100	03	--	--
510305	Elective I	04	--	50	50	--	--	100	04	--	--
510306	Laboratory Proficiency I	--	08	--	--	50	50	100	--	02	02
Total		16	08	250	250	50	50	600	16	02	02

Total Credit

20

510307	Non-Credit Course I								Grade		
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Elective I

510305A	Data Storage Technologies and Networks	510305B	Information Systems Management
510305C	Data Preparation and Analysis	510305D	Artificial Intelligence for Data Science
510305E	Open Elective		

Semester II

Course Code	Course	Teaching Scheme Hours / Week		Examination Scheme and Marks					Credit		
		Theory	Practical	In-Sem	End-Sem	TW	OR/PRE	Total	TH	TW	PR
510308	Data Warehousing and Mining	03	--	50	50	--	--	100	03	--	--
510309	Machine Learning	03	--	50	50	--	--	100	03	--	--
510310	Soft Computing	03	--	50	50	--	--	100	03	--	--
510311	Elective II	04	--	50	50	--	--	100	04	--	--
510312	Mini Project with Seminar I	--	03	--	--	50	50	100	--	01	02
510313	Laboratory Proficiency II	--	08	--	--	50	50	100	--	02	02
Total		13	12	200	200	100	100	600	13	03	04

Total Credit

20

510314	Non-Credit Course II								Grade		
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Elective II

510311A	Distributed Databases	510311B	Recommender Systems
510311C	GPU Computing	510311D	Web Intelligence
510311E	Open Elective		

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Semester III

Course Code	Course	Teaching Scheme Hours / Week		Examination Scheme and Marks					Credit		
		Theory	Practical	In-Sem	End-Sem	TW	OR/PRE	Total	TH	TW	PR
610301	Deep Learning	03	--	50	50	--	--	100	03	--	--
610302	Data Modeling and Visualization	03	--	50	50	--	--	100	03	--	--
610303	Elective III	04	--	50	50	--	--	100	04	--	--
610304	Industry Internship-I/ In-house Research Project-I	--	03	--	--	50	50	100	--	01	02
610305	Dissertation Stage I	--	08	--	--	50	50	100	--	04	04
Total		10	11	150	150	100	100	500	10	05	06
Total Credit									21		
610306	Non-Credit Course III								Grade		

Elective III

610303A	Real Time Analytics	610303B	Business Analytics
610303C	Computational Linguistic Analytics	610303D	Video Analytics
610303E Open Elective			

Semester IV

Course Code	Course	Teaching Scheme Hours / Week	Examination Scheme and Marks			Credit	
		Practical	TW	OR/PRE	Total	TW	PR
610307	Industry Internship-II / In-house Research Project-II	03	50	50	100	01	02
610308	Dissertation Stage II	18	150	50	200	08	10
Total		21	200	100	300	09	12
Total Credit						21	