

BHARATHIAR UNIVERSITY::COIMBATORE 641 046

B. Sc. Artificial Intelligence and Data Science (CBCS PATTERN)
(For the students admitted from the academic year 2023-2024 and onwards)

Scheme of Examination

Part	Title of the Course	Hours/ Week	Examination				Credits
			Duration in Hours	Maximum Marks			
				CIA	CEE	Total	
Semester I							
I	Language - I	4	3	25	75	100	4
II	English - I	4	3	25	75	100	4
III	Core 1: Fundamentals of Computer Programming	5	3	25	75	100	4
III	Core 2: Data Structures	5	3	25	75	100	4
III	Core Lab 1: Computer Programming Lab	5	3	20	30	50	4
III	Allied 1: Linear Algebra	5	3	25	75	100	3
IV	Environmental Studies*	2	3	-	50	50	2
***Add-on Courses - Naan Mudhalvan Scheme: IT Courses -Infosys Springboard							
Total		30		145	455	600	25
Semester II							
I	Language – II	4	3	25	75	100	4
II	English – II	4	3	25	25	50	4
III	Core 3: Introduction to Python Programming	5	3	25	75	100	4
III	Core Lab 2: Python Programming Lab	4	3	20	30	50	2
III	Core Lab 3: Internet Basics Lab	4	3	20	30	50	2
III	Allied 2: Optimization Techniques	5	3	25	75	100	3
IV	Value Education – Human Rights*	2	3	-	50	50	2
	NaanMudhalvan - Skill Course Effective English http://kb.naanmudhalvan.in/images/c/c7/Cambridge_Course_Details.pdf	2		25	25	50	2
Total		30		165	385	550	23
Semester III							
I	Language – III	4	3	25	75	100	4
II	English – III	4	3	25	75	100	4
III	Core 4: Internet Programming	4	3	25	75	100	4
III	Core 5: Foundation of Artificial Intelligence	4	3	25	75	100	4
III	Core Lab 4: Internet Programming Lab	4	3	20	30	50	3
III	Allied 3: Operating System Design	5	3	25	75	100	3
III	Skill based Subject 1: Data Analytics	3	3	25	25	50	2
IV	Tamil** / Advanced Tamil* (OR) Non-major elective - I (Yoga for Human Excellence)* / Women's Rights*	2	3	-	50	50	2
***Add-on Courses - Naan Mudhalvan Scheme: IT Courses -Infosys Springboard							
Total		30		170	480	650	26

Semester IV							
I	Language – IV	4	3	25	75	100	4
II	English - IV	4	3	25	75	100	4
III	Core 6: Cognitive Science and Analysis	4	3	25	75	100	4
III	Core 7: Database Design and Management	4	3	25	75	100	4
III	Core Lab 5: Database Lab	3	3	20	30	50	2
III	Allied 4: Data and Information Security	5	3	25	75	100	3
III	Skill based Subject 2 Lab : Capstone Project Work Phase I	2	3	25	25	50	2
IV	Tamil**/Advanced Tamil* (OR) Non-major elective -II (General Awareness*)	2	3	-	50	50	2
	NaanMuthalvan – Skill Course Office Fundamentals - Lab http://kb.naanmudhalvan.in/Bharathiar_University_BU	2		25	25	50	2
	Total	30		195	505	700	27
Semester V							
III	Core 8: Ethics of Artificial Intelligence	6	3	25	75	100	4
III	Core 9: Fundamentals of Data Science	6	3	25	75	100	4
III	Core Lab 6: Data Science Lab	6	3	20	30	50	4
III	Elective – I: Big Data Analytics / Cyber Security / Deep Learning	6	3	25	75	100	4
III	Skill based Subject 3 Lab : Capstone Project Work Phase II	6	3	25	25	50	2
	***Add-on Courses - Naan Mudhalvan Scheme: IT Courses -Infosys Springboard						
	Total	30		120	280	400	18
Semester VI							
III	Core 10: Robotic Process Automation	5	3	25	75	100	4
III	Core 11: Project Work Lab %%	6	-	25	75	100	4
III	Core Practical –VII : Programming in UI Path Automation Lab	4	3	20	30	50	2
III	Elective – II : Ethical Hacking / Digital Forensics Science / Natural Language Processing	5	3	25	75	100	3
III	Elective – III : Internet of Things / Data Visualization / Social Network Analysis	5	3	25	75	100	3
III	Skill Based Subject 4 : Machine Learning	3	3	25	25	50	2
V	Extension Activities**	-	-	50	-	50	1
	Naan Muthalvan - Skill Course Cyber Security @ http://kb.naanmudhalvan.in/images/7/71/Cybersecurity.pdf (or) Machine Learning # http://kb.naanmudhalvan.in/images/1/19/PBL_Google.pdf (or) Android APP Development http://kb.naanmudhalvan.in/images/0/08/Android_App_Dev.pdf	2		25	25	50	2

	Total	30		220	380	600	21
	Grand Total			1015	2485	3500	140

* No Continuous Internal Assessment (CIA). Only University Examinations.
** No Unive*** Certificate Mandatory (No CIA and CEE) - Add-On Courses: Naan
Mudhalvan Scheme :

➤ #Govt – Non-Autonomous Colleges, \$ Aided – Non-Autonomous Colleges, @
Self - Financing Colleges(Non –Autonomous)