

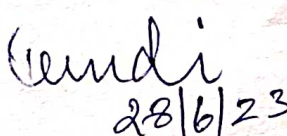
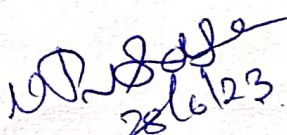
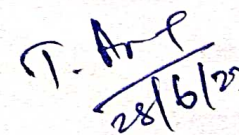
NALLAMUTHU GOUNDER MAHALINGAM COLLEGE

POLLACHI

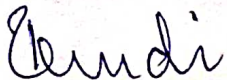
B.SC COMPUTER SCIENCE WITH DATA ANALYTICS

MINUTES OF BOS MEETING

The 2nd Meeting of the Board of Studies of the Department of Computer Science with Data Analytics was held on 28.06.2023 at 2pm in the Research Mall, NGM College, Pollachi

Sno	Name	Designation	Signature
1	Dr. E. Rama Devi Associate Professor & Head Department of Computer Science with Data Analytics NallamuthuGounder Mahalingam College Pollachi ramadevi@ngmc.org 9790373859	Chairman	 28/6/23
2	Dr. S. Parthasarathy Professor and Head in Data Science Thiagaraja College of Engineering Madurai hodamcs@tce.edu 9952203385	University Representative	ABSENT
2	Dr.Pream Sudha. V Professor and Head Dept of Computer science with Data Analytics Dr. NGP Arts and Science College Coimbatore preamsudha@drngpasc.ac.in 9843086130	Subject Expert	 28/6/23
3	Dr T.Anandhakrishnan Asst professor in computer science Sree Saraswathi Thyagaraja College Pollachi . anandthstc@gmail.com , 9003434321	Academic Auditor	 28/6/23
4	B. Sujitha Senior Process Executive_Data CTS, Coimbatore sujithabalamurugan97@gmail.com 7708465781	Industry Expert	

5	Dr. A. KrishnaKumar Assistant Professor Department of Computer Science with Data Analytics NallamuthuGounder Mahalingam College Pollachi	Internal Member	
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HOD

Dr. E. RAMA DEVI, MCA., M.Phil., Ph.D.,
Associate Professor & Head
Department of Computer Science
with Data Analytics
NGM College, Pollachi - 642 001.


CDC COORDINATOR

K. SRINIVASAN, MCA.
Co-ordinator
Curriculum Development Cell (C.C.D.)
NGM College (Autonomous)
Pollachi - 642 001.


COE

Dr. R. MANICKA CHEZIAN, M.Sc., M.S., Ph.D.,
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DEPARTMENT OF DATA ANALYTICS

NALLAMUTHU GOUNDER MAHALINGAM COLLEGE POLLACHI

2nd Board of Studies Meeting in the Department of
B.Sc Computer Science with Data Analytics

Date & Time: 28.06.2023 at 10.30AM

Agenda

BoS / DA 2.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the DEPARTMENT OF DATA ANALYTICS .
BoS / DA 2.2	:	Confirmation of the Minutes of the 1 st Board of studies in the Department of Computer Science held on 04.06.2022 and Action taken report of 1 st meeting of Board of studies
BoS / DA 2.3	:	2.3.1 Syllabus of I BSc COMPUTER SCIENCE WITH DATA ANALYTICS under Regulation 2023
	:	2.3.2 Syllabus of II BSc COMPUTER SCIENCE WITH DATA ANALYTICS under Regulation 2023
	:	Any other Discussions if any
BoS / DA 2.4	:	Suggestion given by BOS Members
BoS / DA 2.5	:	Any other items

**NALLAMUTHU GOUNDER MAHALINGAM COLLEGE
POLLACHI
DEPARTMENT OF DATA ANALYTICS
MINUTES OF BOS MEETING**

The 2nd Meeting of the Board of studies of the Department of Data Analytics was held on 28.06.2023 at 10.30 a.m. in the Common Research Center, Nallamuthu Gounder Mahalingam College, Pollachi

1. The following members were present:

1	Dr. E. Rama Devi Associate Professor & Head Department of Data Analytics NGM College, Pollachi	Chairman
2	Dr. Krishnakumar Assistant Professor, Department of Data Analytics	Internal Member
3	Dr. PremSudha Dr. NGP College of Arts and Science Coimbatore	Academic Expert
4	Dr. Anand Kumar Assistant Professor Sree Saraswathi Thyagaraja College Pollachi	Academic Auditor
5	Mrs. Sujitha	Industrial Expert

2. The following member could not attend the meeting due to their prior commitments and unavoidable reasons.

1	Dr. Parthasarathy Thyagaraja Engineering College Madurai	University Nominee
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E. R. Rama Devi
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Curriculum Development Cell
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R. Manicka Chezian
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**BoS/DA2.1 WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN,
BOARD OF STUDIES IN THE DEPARTMENT OF DATA ANALYTICS**

Dr. E. Rama Devi, The Chairman of BoS, Department of Data Analytics welcomed and introduced the members of 2nd Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.

**BoS/DA2.2 TO CONFIRM THE MINUTES OF THE 1st BOS MEETING HELD ON
04.06.2022**

The minutes of the 1st Board of Studies meeting held on 04.06.2022 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 1st Academic Council.

~ Action Taken Report (Enclosed in Annexure 1)

BoS/DA 2.3

BoS/DA 2.3.1

I BSc COMPUTER SCIENCE (I & II SEMESTER)

- The following papers from the Department of Computer Science with Data Analytics were accepted by the experts fully without further suggestions:

Semester	Course Code	Course Name
I	23UDA101	Core Course I: Programming in C
	23UDA103	Core Course Lab I: Programming Lab in C
II	23UDA2A1	Generic Elective Allied II: Statistics and Probability

- The presented syllabus was accepted by the experts and a few suggestions were given as follows:

Semester	Course Code	Course Name	Suggestions
I	23UDA102	Core Course II: Digital Electronics	To introduce in the 1 st semester to know the intricacies of the computer concepts, which will be helpful for non-computer students

4

II	23UDA204	Core Course III: Problem Solving using Python	To introduce in the IIndsemester, which will be helpful for the students to do the simple data analysis projects in the summer vacation and to participate in the intercollegiate meet
	23UDA206	Core Course Lab II: Programming Lab in Python	To introduce in the IIndsemester, which will be helpful for the students to do the simple data analysis projects in the summer vacation and to participate in the intercollegiate meet
	23UDA205	Core Course IV: Data Structures	Due to the introduction of Digital Electronics in the first semester, this course has been moved to the IInd semester
	23UDA2S1/ 23UDA2S2	SEC I: Naan Mudhalvan Cloud Essentials/ Business English Communication	This course is added based on Government norms

The following courses were revised with major / minor modifications

Semester	Course Code	Course Name	Reason
I	23UDA1A1/ 23UDA1A2	Generic Elective – Allied I: Mathematical Foundation for Data Science/ Numerical Methods	Based on the feedback of the experts, the concept of discrete mathematics is added to the Mathematical Foundation of Data Science. The course Numerical Methods is newly added in Allied I

- New Course Added

Semester	Course Code	Course Name	Reason to add new course
I	23UDA102	Core Course II: Digital Electronics	Feedback from the Experts

I	23UDA1A2	Generic Elective – Allied I: Numerical Methods	Feedback from the CDC
II	23UDA204	Core Course III: Problem Solving using Python	Feedback from the Experts
II	23UDA206	Core Course Lab II: Programming Lab in Python	Feedback from the Experts
II	23UDA2S1/ 23UDA2S2	SEC I: Naan Mudhalvan Cloud Essentials/ Business English Communication	Based on Government Norms

BoS/DA 2.3.2

II BSc COMPUTER SCIENCE (III& IV SEMESTER)

- The following new courses from the Department of Computer Science with Data Analytics were accepted by the experts fully without further suggestions:

Semester	Course Code	Course Name
III	22UDA308	Core V: Problem Solving using Python
	22UDA309	Core VI: Relational Database Management System
	22UDA3A1/ 22UDA3A2	Allied III: Introduction to Linear Algebra/ Applied Statistics
	22UDA310	Core Lab III: Programming Lab in Python
	22UDA311	Core Lab IV: RDBMS Lab
	22UDA3N1/ 22UDA3N2	NME I: Web Designing using HTML and CSS/Adobe Photoshop
IV	22UDA412	Core VII: R Programming in Data Science
	22UDA413	Core VIII: Data Mining
	22UDA4A1/ 22UDA4A2	Allied IV: Fundamentals of Cloud Computing/ Internet of Things
	22UDA414	Core Lab V: Programming Lab in R
	22UDA415	Core Lab VI: Data Mining Lab
	22UDA4S1/ 22UDA4S2	SEC I : Naan Mudhalvan Data Science Foundation/Microsoft Office Fundamentals
	22UDA4N1/ 22UDA4N2	NME II: Data Analysis using Excel/ Office Automation Tools

These changes have been made effect for the students admitted in the year 2023 with I and II Semesters and in the year 2022 with III and IV semesters accordingly.

BoS/DA 2.4 SUGGESTIONS GIVEN BY THE BoS MEMBERS

The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Curriculum and Syllabi. Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

- The syllabus of First Year of the Department of Data Analytics under Regulation 2023.
- The syllabus of Second Year of the Department of Data Analytics under Regulation 2023.

ANNEXURE I

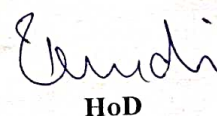
Minutes of the Ist Board of Studies Meeting – Action Taken Report

S.No	Suggestion given by expert members	Action taken
1	Introduction of Digital Electronics to know the intricacies of Computer	Implemented
2	Introducing the Python Paper in the IInd Semester	Implemented
3	Adding the concept of Discrete Maths in Mathematical Foundation for Data Science course	Implemented



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**List of Courses having focus on Local, National, Regional, Global Developmental needs
offered by the B.Sc Computer Science with Data Analytics**

B.Sc Computer Science with Data Analytics						
Programme :B.Sc Computer Science with Data Analytics						Year : 2023
Course Code	Course Title	Need				Rationale
		Local	National	Regional	Global	
23UDA101	Core Course I: Programming in C	✓	✓	✓	✓	Despite the prevalence of higher-level languages, C continues to empower the world. Microsoft's Windows kernel, Linux Kernel, Mac OS X kernel, iOS, Android and Windows Phone kernels are written in C. The world's most popular databases like MySQL, Oracle Database, MS SQL server, PostgreSQL are coded in C. Efficiently work on enterprise applications, games, graphics, and applications requiring calculations
23UDA102	Core Course II: Digital Electronics		✓	✓		Digital Electronics gives the basic building blocks of every computing machine in the world. Digital logic deals with the building blocks on which most topics in Computer Organization and Architecture are based like combinational and sequential circuits, gates, decoders, multiplexers, etc.
23UDA1A1/ 23UDA1A2	Generic Elective – Allied I: Mathematical Foundation for Data Science/					Mathematical Foundation for data science provides the basis for data analysis. It comprises of the concept of Discrete Maths which

	Numerical Methods	✓	✓	✓	✓	is the mathematical language of computer science. Concepts and notations from discrete mathematics are useful in studying and describing objects and problems in all branches of computer science, such as computer algorithms, programming languages, cryptography, automated theorem proving, and software development. Numerical methods are another important concept for data analysis applications
23UDA103	Core Course Lab I: Programming Lab in C	✓	✓	✓	✓	C programming language continues to empower the world. Embedded systems are most commonly programmed in the C language, due to the language's features offlexibility. efficiency, performance, portability and closeness to the hardware. All ofthese features allow C to have applications across every domain in the world of programming. C is used in almost all the desktop operating systems, mobile OS and even in programming robots.
23UDA204	Core Course III: Problem Solving using Python	✓	✓	✓	✓	Python language helps to do task automation, conduct complex statistical calculation, build machine learning models, manipulate and analyse data for all kind of businesses and present results using visualizations for real datasets

23UDA205	Core Course IV: Data Structures	✓	✓	✓	✓	Data Structures and Algorithm implementation is used to test analytical skills as it is useful tool to pick out the underlying algorithm in real world and solve them efficiently. A specialized format for organizing, processing, retrieving and storing data and files
23UDA2A1/ 23UDA2A2	Generic Elective Allied II: Statistics and Probability/ Optimization Techniques	✓	✓	✓	✓	Statistical analysis is one of the most widely used application in the world today and is used in almost every industry, ranging from finance, banking to medicine and manufacturing, Banking, Healthcare, Social Media, ECommerce and Manufacturing. . It is also used in analyzing and interpreting various Indian Government projects, schemes and laws by extracting the data from social networks. A Powerful approach to decision making by achieving more complete datasets, considering all available options, predict all possible outcomes and estimate risk
23UDA206	Core Course Lab II: Programming Lab in Python	✓	✓	✓	✓	Python language helps to do task automation, conduct complex statistical calculation, build machine learning models, manipulate and analyse data for all kind of businesses and present results using visualizations

						for real datasets
23UDA2S1	SEC I: Naan Mudhalvan Cloud Essentials	✓	✓	✓	✓	Cloud infrastructures support environmental proactivity, powering virtual services rather than physical products and hardware, and cutting down on paper waste, improving energy efficiency, and (access from anywhere with an internet connection) reducing commuter-related emissions. Hosting on cloud is more environmentally friendly and results in less a carbon footprint.

B.Sc Computer Science with Data Analytics						
Programme :B.Sc Computer Science with Data Analytics						Year : 2022
Course Code	Course Title	Need				Rationale
		Local	National	Regional	Global	
22UDA308	Core V: Problem Solving using Python	✓	✓	✓	✓	Python language helps to do task automation, conduct complex statistical calculation, build machine learning models, manipulate and analyse data for all kind of businesses and present results using visualizations for real datasets
22UDA309	Core VI: Relational Database Management System	✓	✓	✓	✓	Provides an interface between users and applications and the database, as well as administrative functions for managing data storage, access, and performance. A software which is used

						to store, manage, query, and retrieve data stored in a relational database
22UDA3A1/ 22UDA3A2	Allied III: Introduction to Linear Algebra/ Applied Statistics	✓	✓	✓	✓	The concepts of linear algebra play a very crucial role for understanding the theory behind data science. It helps in understanding the intuition behind the functionality of the algorithm in the background. Linear algebra provides essential tools for solving optimization problems and solving systems of linear equations. With the help of Linear Algebra, we can build supervised learning algorithms from scratch, such as support vector machines, decision trees, logistic regression, and linear regression (SVM). Statistical analysis is one of the most widely used application in the world today and is used in almost every industry, ranging from finance, banking to medicine and manufacturing, Banking, Healthcare, Social Media, ECommerce and Manufacturing.
22UDA310	Core Lab III: Programming Lab in Python	✓	✓	✓	✓	Python language helps to do task automation, conduct complex statistical calculation, build machine learning models, manipulate and analyse data for all kind of businesses and present results using visualizations for real datasets

22UDA311	Core Lab IV: RDBMS Lab	✓	✓	✓	✓	Provides an interface between users and applications and the database, as well as administrative functions for managing data storage, access, and performance. A software which is used to store, manage, query, and retrieve data stored in a relational database
22UDA3N1/ 22UDA3N2	NME I: Web Designing using HTML and CSS/Adobe Photoshop	✓	✓	✓	✓	Web Designing using HTML provides the raw tools needed to structure the content on a website. With the interactive pages and navigation, web developers create stylish and captivating websites. Web developers write code and set up the software to add complicated features and cutting-edge functionality to websites and portals. Provides many image editing features for pixel-based images, raster graphics and vector graphics
22UDA412	Core VII: R Programming in DataScience	✓	✓	✓	✓	With the emergence of Big Data, the Data Science field has become one of the most popular fields today. Companies possess valuable data, and there is a strong need to leverage the information present in this data to generate meaningful insights for decision-making. A proper and detailed data analysis is required to generate these insights with the help

						of several tools. R is a popular programming language for data analysis, processing, transformation, and visualization. R provides an environment for statistical analysis. It offers statistical and graphical capabilities. R can be used for classification, clustering, statistical tests, and linear and nonlinear modeling.
22UDA413	Core VIII: Data Mining	✓	✓	✓	✓	Since we live and work in a data-centric world, it's essential to get as many advantages as possible. Data mining provides us with the means of resolving problems and issues in this challenging information age. Data mining is the process of analyzing a large batch of information to discern trends and patterns. Data scientists can use the information to detect fraud, build risk models, and improve product safety. It helps data scientists quickly initiate automated predictions of behaviors and trends and discover hidden patterns
22UDA4A1/ 22UDA4A2	Allied IV: Fundamentals of CloudComput ing/ Internet of Things	✓	✓	✓	✓	Cloud infrastructures support environmental proactivity, powering virtual services rather than physical products and hardware, and cutting down on paper waste, improving energy efficiency, and (access from anywhere with an

						internet connection) reducing commuter-related emissions. Hosting on cloud is more environmentally friendly and results in less a carbon footprint. Internet of things has been gaining importance globally, both for industrial and everyday use. It makes lives better with smart homes, predictive maintenance with comfortable and safe driving experience, smart wear and so on. IoT allows companies to automate processes and save money on labour
22UDA414	Core Lab V Programming Lab in R	✓	✓	✓	✓	R is an advanced language that performs various complex statistical computations and calculations. Therefore, it is widely used by data scientists and business leaders in multiple fields, from academics to business. Moreover, R interprets the data in a graphical form, making it easy to interpret and understand
22UDA415	Core Lab VI Data Mining Lab	✓	✓	✓	✓	Provides a practical approach to data mining with large volumes of complex data; prepare, cleanse and explore data; supervised and unsupervised modelling with association rules and market basket analysis, decision trees, multi-layer neural networks, k-nearest neighbours, k-means

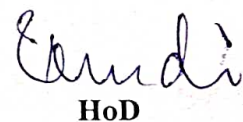
						clustering and self-organising maps, ensemble and bundling techniques, text mining; use of leading software tools; business examples and research literature.
22UDA4S1/ 22UDA4S2	SEC I : Naan Mudhalvan Data Science Foundation/ Microsoft Office Fundamentals	✓	✓	✓	✓	Data Science Foundations speaks about the fundamental statistical theories and methods, life cycle, and tasks in Data Science procedures. These fundamentals can be applied to learn advanced concepts in Data Science and solve real-time problems more efficiently. Provides the basics of cleaning, analyzing and visualizing data. Provides the industry standard languages and libraries including python, numpy, panda and matplotlib. Microsoft Office is a suite of applications designed to help with productivity and completing common tasks on a computer. We can create and edit documents containing text and images, work with data in spreadsheets and databases, and create presentations and posters.
22UDA4N1/ 22UDA4N2	NME II: Data Analysis using Excel/ Office Automation Tools	✓	✓	✓	✓	Analyze Data in Excel empowers us to understand our data through natural language queries that allow us to ask questions about our data without having to write complicated formulas. In addition,

						Analyze Data provides high-level visual summaries, trends, and patterns. An office automation is a tool that enables data to move from one system to another on its own without human intervention and inaccuracies. These tools help organizations collect, manage, and analyze securely to accomplish everyday tasks and processes. It optimizes and automates existing business processes and procedures.
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**List of Courses having focus on employability/ entrepreneurship/ skill development offered
by the Department**

DEPARTMENT OF DATA ANALYTICS						
Programme: B.Sc Computer Science with Data Analytics					Year: 2023	
Course Code	Course Title	Employability (EM) / Entrepreneurship (EN) / Skill Development (SD)			Focus	Year of Introduction
		EM	EN	SD		
23UDA101	Core Course I: Programming in C	EM		SD		2022
23UDA102	Core Course II: Digital Electronics			SD		2023
23UDA1A1/ 23UDA1A2	Generic Elective – Allied I: Mathematical Foundation for Data Science/ Numerical Methods	EM		SD		2022
23UDA103	Core Course Lab I: Programming Lab in C	EM	EN	SD		2022
23UDA204	Core Course III: Problem Solving using Python	EM	EN	SD		2023
23UDA205	Core Course IV: Data Structures	EM		SD		2022
23UDA2A1/2 3UDA2A2	Generic Elective Allied II: Statistics and Probability/ Optimization Techniques	EM		SD		2022
23UDA206	Core Course Lab II: Programming Lab in Python	EM	EN	SD		2023
23UDA2S1/ 23UDA2S2	SEC I: Naan Mudhalvan Cloud Essentials/ Business English Communication	EM	EN	SD		2023

DEPARTMENT OF DATA ANALYTICS						
Programme: B.Sc Computer Science with Data Analytics					Year: 2022	
Course Code	Course Title	Employability (EM) / Entrepreneurship (EN) / Skill Development (SD)			Focus	Year of Introduction
		EM	EN	SD		
22UDA308	Core V: Problem Solving using Python	EM		SD		2023
22UDA309	Core VI: Relational Database Management System	EM		SD		2023
22UDA3A1/ 22UDA3A2	Allied III: Introduction to Linear Algebra/ Applied Statistics	EM		SD		2023
22UDA310	Core Lab III: Programming Lab in Python	EM		SD		2023
22UDA311	Core Lab IV: RDBMS Lab	EM		SD		2023
22UDA3N1/ 22UDA3N2	NME I: Web Designing using HTML and CSS/Adobe Photoshop	EM		SD		2023
22UDA412	Core VII: R Programming in Data Science	EM		SD		2023
22UDA413	Core VIII: Data Mining	EM		SD		2023
22UDA4A1/ 22UDA4A2	Allied IV: Fundamentals of Cloud Computing/ Internet of Things	EM		SD		2023
22UDA414	Core Lab V: Programming Lab in R	EM		SD		2023
22UDA415	Core Lab VI: Data Mining Lab	EM		SD		2023
22UDA4S1/ 22UDA4S2	SEC I : Naan Mudhalvan Data Science Foundation/Microsoft Office Fundamentals	EM		SD		2023
22UDA4N1/ 22UDA4N2	NME II: Data Analysis using Excel/ Office Automation Tools	EM		SD		2023

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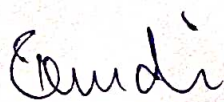
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DEPARTMENT OF DATA ANALYTICS – 2023 – I and II Semester							
S.No	Course Code	Course Title	Change Details	% of Changes	Content Deleted	Content Updated	Reason for Change
							Subject Expert / Course Teacher / Alumni Opinion
1	23UDA101	Core Course I: Programming in C	Content Added	10	NIL	Introduction to computing in the 1st Unit	Course Teacher
2	23UDA102	Core Course II: Digital Electronics	New Syllabus	100	NIL	New Syllabus	Subject Expert
3	23UDA1A1/ 23UDA1A2	Generic Elective – Allied I: Mathematical Foundation for Data Science/ Numerical Methods	Content Modified	40	Differential calculus and Integral Calculus	Discrete Math is added	Subject Expert
4	23UDA103	Core Course Lab I: Programming Lab in C	New Programs	10	NIL	New Programs are added	Course Teacher
5	23UDA204	Core Course III: Problem Solving using Python	New Syllabus	100	NIL	New Syllabus	Subject Expert
6	23UDA205	Core Course IV: Data Structures	Content deleted	10	External sorting	External sorting is deleted	Subject Expert
7	23UDA2A1/2 3UDA2A2	Generic Elective Allied II: Statistics and Probability/ Optimization Techniques	No change				
8	23UDA206	Core Course Lab II: Programming Lab in Python	New Syllabus	100	NIL	New Syllabus	Subject Expert
9	23UDA2S1/ 23UDA2S2	SEC I: Naan Mudhalvan Cloud Essentials/ Data Manipulation using Excel	New Syllabus	100	NIL	New Syllabus	Subject Expert

DEPARTMENT OF DATA ANALYTICS – 2022 - III and IV Semester							
S.No	Course Code	Course Title	Change Details	% of Changes	Content Deleted	Content Updated	Reason for Change
							Subject Expert / Course Teacher / Alumni Opinion
1	22UDA308	Core V: Problem Solving using Python	New Syllabus	100	NIL	New Syllabus	Subject Expert
2	22UDA309	Core VI: Relational Database Management System	New Syllabus	100	NIL	New Syllabus	Subject Expert
3	22UDA3A1/ 22UDA3A2	Allied III: Introduction to Linear Algebra/ Applied Statistics	New Syllabus	100	NIL	New Syllabus	Subject Expert
4	22UDA310	Core Lab III: Programming Lab in Python	New Syllabus	100	NIL	New Syllabus	Subject Expert
5	22UDA311	Core Lab IV: RDBMS Lab	New Syllabus	100	NIL	New Syllabus	Subject Expert
6	22UDA3N1/ 22UDA3N2	NME I: Web Designing using HTML and CSS/ Adobe Photoshop	New Syllabus	100	NIL	New Syllabus	Subject Expert
7	22UDA412	Core VII: R Programming in Data Science	New Syllabus	100	NIL	New Syllabus	Subject Expert
8	22UDA413	Core VIII: Data Mining	New Syllabus	100	NIL	New Syllabus	Subject Expert
9	22UDA4A1/ 22UDA4A2	Allied IV: Fundamentals of Cloud Computing/ Internet of Things	New Syllabus	100	NIL	New Syllabus	Subject Expert
10	22UDA414	Core Lab V: Programming Lab in R	New Syllabus	100	NIL	New Syllabus	Subject Expert
11	22UDA415	Core Lab VI: Data Mining Lab	New Syllabus	100	NIL	New Syllabus	Subject Expert
12	22UDA4S1/ 22UDA4S2	SEC I : Naan Mudhalvan Data Science Foundation/ Microsoft Office Fundamentals	New Syllabus	100	NIL	New Syllabus	Subject Expert
13	22UDA4N1/ 22UDA4N2	NME II: Data Analysis using Excel/ Office Automation Tools	New Syllabus	100	NIL	New Syllabus	Subject Expert


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