

**Minutes of the 1<sup>st</sup> Meeting of the Board of Studies of the Dept. of Data Science and Analytics  
School of Social Sciences (SSS), Ramaiah University of Applied Sciences (RUAS)  
Held on 10<sup>th</sup> July 2021(Online Mode)  
Time: 4 to 6 PM**

**Members Present:**

Sl.no	Name	Designation
1	Dr. Anindya Sen,	Pro Vice – Chancellor, SSS RUAS (Chair of Board)
2	Dr. Manisha Chakrabarty	Professor, Indian Institute of Management, Calcutta
3	Dr. Praphul Chandra	Professor, international School of Engineering, Bengaluru
4	Dr. Biswabrata Pradhan	Professor, Indian Statistical Institute, Calcutta
5	Dr. Supriyo Ghose	Professor, IFMI Business School, Bengaluru
6	Dr. Govind R Kadambi	Pro vice Chancellor (Research) RUAS, Bengaluru
7	Dr. Chethan Singai	Associate Professor, SSS, RUAS, Bengaluru

**Call to order and Quorum:**

The meeting was called to order by Dr. Anindya Sen, Chairperson at 4:00 pm. With sufficient quorum being present, the proceedings of the meeting were commenced by the Chairperson.

**Welcome and Overview**

Dr. Anindya Sen, welcomed all members of the Board of Studies and introduced the external members to the faculty of School of Social Sciences. Dr. Chethan Singai presented the detailed programme structure for the B.Sc. (Hons) in Data Sciences and Analytics to the members of the BoS.

**Agenda Item 1. Review and approve the proposed programme specification offered by Department of Data Sciences and Analytics, School of Social Sciences, M S Ramaiah University of Applied Sciences, Bengaluru.**

The program specification with the program structure details for the B.Sc. (Hons.) in Data Sciences and Analytics were presented to the members of Board of Studies (BoS).

The details of courses semester wise were displayed in the program structure and discussed with BoS members. The course specification with details were also presented. The curriculum has been crafted in line with both global and national needs in the field of data sciences, with the primary goal of enhancing students' employability skills. BoS members recommended revisiting



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and reorganizing a few courses across semesters, particularly suggesting that some of the courses initially planned for Semester 3 and 4 be moved to Semester 6 and 7, as these courses contain advanced content with a stronger focus on updated skill and employability. BoS members further proposed that the program should incorporate a mechanism where students can choose between three courses from the basket of courses provided by the department for specialization during Semester 6, 7, and 8.

The elective courses have been designed with the aim of enhancing advanced skills and instilling professional ethics to prepare students for the industry. Discussions also revolved around the importance of including a course on innovation and entrepreneurship to cultivate a mind-set for starting their own ventures. Courses in data visualization and database management systems have been developed with a focus on promoting gender sensitivity, environmental awareness, attaining sustainable development goals, and ethical concerns..

In this context, a total of 38 new courses have been introduced as part of this new program, which will be made available to students from the 2021-22 academic year onwards, with a balanced distribution across each semester and in each academic year(see Annexure for the program structure).

BoS members appreciated about the incorporation of mandatory capstone projects and internships in the curriculum as they contribute to experiential learning opportunities for data science students.

**Resolution:**

The members of the BoS approved the programme specification and resolved to develop the course specifications based on the inputs of the BoS and recommended for further approval from the Academic Council.

**Vote of thanks and Adjournment:** There being no further business, the Chairperson declared the meeting adjourned by unanimous consent. The meeting ended with the vote of thanks by the Chairperson.

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## Programme Structure:

Semester 1							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	21SSSF101A	Compulsory Foundation Course 1 (CFC 1)	3	1		4	100
2	21SSSF102A	Compulsory Foundation Course 1 (CFC 2)	3	1		4	100
3	21BSDC103A	Linear Algebra	4	1		5	100
4	21BSDC104A	Programming in R	4	1		5	100
5	21BSDE102A	Data Visualization	4	1		5	100
6	21BSDC106A	Ability Enhancement Course 1	1	1		2	100
<b>Total</b>			<b>19</b>	<b>6</b>		<b>25</b>	<b>600</b>
<b>Total number of contact hours per week</b>			<b>25</b>				

Semester 2							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	21SSSF111A	Compulsory Foundation Course 3 (CFF 3)	3	1		4	100
2	21SSSF112A	Compulsory Foundation Course 4 (CFC 4)	3	1		4	100
3	21BSDC113A	Inferential Statistics	4	1		5	100

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4	21BSDC114A	Regression Techniques and Time Series Analysis	4	1		5	100
5	21BSDC115A	Programming in Python(CC)	4	1		5	100
6	21BSDC116A	Generic Elective 1	4	1		5	100
7	21BSDC117A	Skill Enhancement Course 1	1	1		2	100
<b>Total</b>			<b>23</b>	<b>7</b>		<b>30</b>	<b>700</b>
<b>Total number of contact hours per week</b>			<b>30</b>				

**Semester 3**

Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	21BSDC201A	Multivariate Analysis	4	1		5	100
2	21BSDC202A	Data base Management Systems	4	1		5	100
3	21BSDC203A	Data Pre-processing	4	1		5	100
5	21BSDG204A	Generic Elective 2	4	1		5	100
6	21BSDC206A	Ability Enhancement Course 1	1	1		2	100
<b>Total</b>			<b>17</b>	<b>5</b>		<b>22</b>	<b>600</b>

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Total number of contact hours per week	22	
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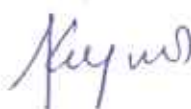
Semester 4							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	21BSDC211A	Operations Research & Optimisation Techniques (CC)	4	1		5	100
2	21BSDC212A	Data Warehousing & Mining (CC)	4	1		5	100
3	21BSDC213A	Artificial Intelligence (CC)	4	1		5	100
4	21BSDG214A	Generic Elective-3	4	1		5	100
5	21BSDS215A	Skill Enhancement Course - 2 (SEC-2)	1	1		2	100
Total			17	5		22	500

Total number of contact hours per week	22
Note: Students must choose one DSE out of three DSEs	

Semester 5							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	21BDSC301A	Machine Learning (CC)	3	1		25	100
2	21BDSC302A	Big Data (CC)	4	1		5	100
3	21BDSD301A	Advanced Time Series and forecasting	3	1		25	100
4	21BDSD304A	Introduction to Econometrics	4	1		5	100
5	21BSDO305A	Open Elective-1 (SSS)	4	1		5	100
Total			20	5		25	500

Total number of contact hours per week	25
Note: Students must choose three DSE out of four DSEs	

Semester 6							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	21BSDC311A	Dissertation/Project (CC)				126	100

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2	21BSDD312A	Computing for Data Sciences (DSE) (Track 1)	4	1		5	100
3	21BSDD313A	Risk Management (DSE) (Track 2)	4	1		5	100
4	21BSDD314A	Open Elective-2 (SSS)	4	1		5	100
<b>Total</b>			<b>24</b>	<b>3</b>		<b>21</b>	<b>400</b>
<b>Total number of contact hours per week</b>							

Note: Students must choose one DSE out of three DSEs

Semester 7							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	21BSDD401A	Cloud Computing (DSE) (Track 1)	4	1		5	100
2	21BSDD402A	Advanced Machine Learning (DSE) (Track 1)	4	1		5	100
3	21BSDD403A	Applied Social Network Analysis with Python (DSE) (Track 2)	4	1		5	100
4	21BSDD404A	Applications in Economics (DSE) (Track 2)	4	1		5	100
5	21BSD0407A	Open Elective-3 (SSS)	4	1		5	100
<b>Total</b>			<b>28</b>	<b>5</b>		<b>35</b>	<b>700</b>
<b>Total number of contact hours per week</b>			35				

Semester 8							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	21BSDI411A	Capstone/project/Internship				126	100
<b>Total</b>						<b>126</b>	<b>100</b>
<b>Total number of contact hours per week</b>			12				

Students must choose one DSE out of two DSEs

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