

S.P.Mandali's
RAMNARAIN RUIA AUTONOMOUS COLLEGE, MUMBAI-19
Minutes of the meeting of the Board of Studies in Statistics

Day: Tuesday

Date: 20th September 2022

Time: 11.00 a.m.

Venue: Conference Room

Online meeting on Google Meet: <https://meet.google.com/cba-ewyg-fxq>

Members Present:

S. P. MANDALI'S
RAMNARAIN RUIA AUTONOMOUS COLLEGE, MATUNGA, MUMBAI-400019
DEPARTMENT OF STATISTICS
MEETING OF BOARD OF STUDIES IN STATISTICS
ATTENDANCE

Date: 20th SEPTEMBER 2022

Time: 11.00 am

VENUE: CONFERENCE ROOM

Sr No	NAME	DESIGNATION	CATEGORY	SIGNATURE
1	Ms. Pallavi Rege	Associate Professor & Head, Department of Statistics, SIES College of Arts, Science, and Commerce	VC Nominee	ABSENT
2	Dr. Leena Kulkarni	Assistant Professor & Program Chairperson, M.Sc. Applied Statistics & Analytics, Sunandan Divatia School of Science, NMIMS University, Mumbai	Member from Other University	
3	Dr. B.G. Kore	Principal, Adarsh College, Vita	Member from Other University	Attended online
4	Ms. Sandhya Dalvie	Lead Data Scientist, Accenture	Industry Representative	
5	Ms. Vardhini Deshmukh	Manager, Analytics, Business Intelligence Unit, Kotak Mahindra Bank	Postgraduate Meritorious Alumnus	
6	Dr. Sucheta Ketkar	Associate Professor	Head and Chairperson	
7	Dr. Sujata Suvamapathi	Associate Professor	Faculty	
8	Dr. Ashwini Deshpande	Associate Professor	Faculty	
9	Mr. Saleem Parwale	Assistant Professor	Faculty	
10	Ms. Auna Garu	Assistant Professor	Faculty	
11	Ms. Tanvi Koyande	Assistant Professor	Faculty	



Dr. Sucheta Ketkar welcomed the Board members. Leave of absence was granted to Ms. Pallavi Rege.

Agenda No. 1:

To seek approval for the changes in the modalities of assessment, if any, which includes the question paper pattern, for internal and semester end examination and the assessment of Semester End examinations (Theory/Practical, wherever applicable).

Dr. Sucheta Ketkar informed that there is no change proposed in any modality of assessment.

Agenda No. 2:

To seek approval for the new Post Graduate Programmes (if applicable) for the academic year 2023-24 and approve the syllabus for the same.

Department of Statistics put forth the proposal of new PG programme titled **MSc in 'Statistics and Data Science' to be started in the academic year 2023-24. A rough draft of the courses with its syllabus to be taught in each semester of this programme was presented in the meeting.**

DISCUSSED THAT:

- 1) Dr Leena Kulkarni supported the proposal and the title.
- 2) Dr. Kore seconded the proposal but asked to ensure the receipt of approval of the programme from the University and the Government of Maharashtra.

RESOLVED THAT: The title of the programme will be titled "**MSc in Statistics and Data Science**".

FURTHER DISCUSSED THAT:

Dr. B. G. Kore suggested that the two courses on Real Analysis and Linear Algebra should be combined. Dr. Leena Kulkarni suggested that the Statistical Inference-1 and Statistical Inference-2 should be combined, and so also the Sampling Techniques and Designs of Experiment courses to be combined. Ms. Sandhya Dalvie and Ms Vardhini Deshmukh suggested that the courses for the data science should start from Semester 1 and not from Semester 3. Both suggested that there should be one course on Deep Learning to be added in Semester 3. Members also suggested that a project should be given to the students at the end of Semester 2. Statistical tools like R programming, Python programming to be taught in the first year and advanced techniques to be taught in Semester 3.

All the members agreed on the 3-4 month long Internship in Semester 4.

It was decided to prepare a shared document of the M.Sc. syllabus with the members for their further suggestions.



Agenda No. 3:

To seek approval for the Eligibility for the admission to Post Graduate programmes (If applicable)

DISCUSSED THAT:

Dr. Sucheta Ketkar opened the discussion on Eligibility criterion for the admission to “**MSc in Statistics and Data Science**” programme.

RESOLVED THAT:

The discussion of the previous agenda led to the conclusion that the Eligibility for the admission to “**MSc in Statistics and Data Science**” programme be BSc in Statistics or Statistics as one of the subjects at the Third year of the B.Sc. programme.

The entrance test for “**MSc in Statistics and Data Science**”, if needed, should be based on MCQs.

Agenda No. 4:

To seek approval for the new certificate courses (for 2023-24), if any.

There were no certificate courses for getting approval.

Agenda No. 5:

To seek suggestions for the implementation of NEP 2020 with reference to the inclusion of the following features i) Four Year Undergraduate Program ii) Indian Knowledge System iii) Multidisciplinary/Trans-disciplinary approach iv) Vocational Courses v) Industry academia collaborations vi) Internships.

DISCUSSED THAT:

- 1) Dr. Sucheta Ketkar invited suggestions for the implementation of NEP 2020.
- 2) Dr Kore Suggested that it should start from school level and gradually come to UG level but he also suggested that we should wait for further guidelines from the parent University.
- 3) Dr. Sucheta Ketkar asked for suggestions regarding topics on the Indian Knowledge System that can be included.
- 4) Dr. Sujata Suvarnapathki suggested that there is an online course on Indian Knowledge System conducted by IIT, Gandhinagar and students can be asked to complete that course.
- 5) Dr Leena Kulkarni and Dr. Sujata suggested that it can be included in one of the units in the First Year.
- 6) Dr. Sujata said that Industry academia collaborations can be set up and internships for students can be arranged.



Agenda No. 6:

Any other matter with the permission of the Chair.

There was no other matter for discussion.

Meeting ended with Dr. Sucheta thanking all the members for sparing their valuable time and providing worthy inputs.



22/9/2022
Dr. Sucheta Ketkar
Head, Department of Statistics



S.P.Mandali's
RAMNARAIN RUIA AUTONOMOUS COLLEGE, MUMBAI-19
Minutes of the meeting of the Board of Studies in Statistics

Day: Saturday

Date: 15th April 2023

Time: 4.00 p.m.

Online meeting on Google Meet: <http://meet.google.com/hsv-pscm-qwg>

Members of the Board of Studies in Statistics:

Sr. No.	Name of the Member	Designation	Signature
1	Mrs. Pallavi Rege	Associate Professor and Head, Dept. of Statistics, SIES College, Sion	PRESENT
2	Dr. Leena Kulkarni	Assistant Professor & Program Chairperson, M.Sc. Applied Statistics & Analytics, Sunandan Divatia School of Science, NMIMS University, Mumbai	ABSENT
3	Dr. B.G. Kore	Principal, Adarsh College, Vita	PRESENT
4	Ms. Sandhya Dalvie	Lead Data Scientist, Accenture	ABSENT
5	Ms. Vardhini Deshmukh	Manager, Analytics, Business Intelligence Unit, Kotak Mahindra Bank	PRESENT
6	Dr. Sucheta Ketkar	Associate Professor and Head, Dept of Statistics	PRESENT
7	Dr. Sujata Suvarnapathki	Assistant Professor, Dept of Statistics	PRESENT
8	Dr. Ashwini Deshpande	Assistant Professor, Dept of Statistics	PRESENT
9	Mr. Saleem Panwale	Assistant Professor, Dept of Statistics	PRESENT
10	Mrs. Aruna Ganu	Assistant Professor, Dept of Statistics	PRESENT
11	Ms. Tanvi Koyande	Assistant Professor, Dept of Statistics	PRESENT





Dr. Sucheta Ketkar welcomed the Board members. Leave of absence was granted to Dr. Leena Kulkarni.

Agenda No. 1:

To seek approval for the change in the number of Credits to be awarded for the undergraduate programs B.A. and B.Sc. (for the students admitted to First Year for the academic year 2022-23) from 132 to 120.

Dr. Sucheta Ketkar informed the members of the board that the administrative authorities decided to change the number of credits to be given to the undergraduate program (for the intake batch of 2022-23) back to 120 instead of 132.

RESOLVED THAT: The number of credits to be awarded to the undergraduate program be 120.

Mrs. Pallavi Rege proposed and Dr. Kore seconded it.

Agenda No. 2:

To seek approval for the changes in the syllabus for S.Y.B.A./B.Sc./B.VOC. /BACM and

T.Y.B, A./B.Sc./B.VOC. /BACM. And MA/MSc. wherever applicable.

Department of Statistics proposed **NO Change** in the syllabus for SYBA/SYBSc and TYBA/TYBSc.



Agenda No. 3:

To seek approval for the Swayam Courses identified by the department.

The department has not identified any course on SWAYAM or NPTEL platform.

Agenda No. 4:

Any other matter with the permission of the Chair.

Dr. Sujata Suvarnapathki, Dean, Academic Affairs, explained the structure of the UG programs under NEP2020 that the college may adopt. As there are no guidelines received from the University or the Government of Maharashtra, Dr. Sujata told the members that we will be meeting in June 2023 to discuss the syllabus of the First Year under NEP2020. Dr. Sucheta asked Dr. Kore and Mrs Pallavi Rege about the implementation of NEP2020 in their institutes. Dr. Kore told the board that his college has already implemented NEP since last year.

Meeting ended with Dr. Sucheta thanking all the members for sparing their valuable time and providing worthy inputs.



18/4/2023
Dr. Sucheta Ketkar
Head, Department of Statistics



S.P.Mandali's
RAMNARAIN RUIA AUTONOMOUS COLLEGE, MUMBAI-19
Minutes of the meeting of the Board of Studies in Statistics

Day: Saturday

Date: 17th June 2023

Time: 3.30 p.m.

Online meeting on Google Meet: <http://meet.google.com/sig-ahrd-pbn>
Members of the Board of Studies in Statistics:

Sr. No.	Name of the Member	Designation	Signature
1	Mrs. Pallavi Rege	Associate Professor and Head, Dept. of Statistics, SIES College, Sion	PRESENT
2	Dr. Leena Kulkarni	Assistant Professor & Program Chairperson, M.Sc. Applied Statistics & Analytics, Sunandan Divatia School of Science, NMIMS University, Mumbai	PRESENT
3	Dr. B.G. Kore	Principal, Adarsh College, Vita	PRESENT
4	Ms. Sandhya Dalvie	Lead Data Scientist, Accenture	ABSENT
5	Ms. Vardhini Deshmukh	Manager, Analytics, Business Intelligence Unit, Kotak Mahindra Bank	PRESENT
6	Dr. Sucheta Ketkar	Associate Professor and Head, Dept of Statistics	PRESENT
7	Dr. Sujata Suvarnapathki	Assistant Professor, Dept of Statistics	PRESENT
8	Dr. Ashwini Deshpande	Assistant Professor, Dept of Statistics	PRESENT
9	Mr. Saleem Panwale	Assistant Professor, Dept of Statistics	PRESENT
10	Mrs. Aruna Ganu	Assistant Professor, Dept of Statistics	PRESENT
11	Ms. Tanvi Koyande	Assistant Professor, Dept of Statistics	PRESENT





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Credit Structure for Four-year degree program under NEP 2020 To be implemented from 2023-24

Semester	Subject 1		Subject 2	GE/ OE course (Across disciplines)	Vocational and Skill Enhancement Course (VSC) & SEC	Ability Enhancement Course/ VEE/IKS	OJT/FP/CEP CC, RP	Total Credits
	DSC	DSE						
1	4 (3T+1P)		4 (3T+1P)	4 (2*2)	VSC-2 + SEC-2	AEC-2 + VEE-2 + IKS-2		22
2	4 (3T+1P)		4 (3T+1P)	4 (2*2)	VSC-2 + SEC-2	AEC-2 + VEE-2	CC-2	22
Total	8		8	8	4	4	2	44
Exit option: award of UG certificate in Major with 44 credits and an additional 4 credit Core NSQF course/ Internship or Continue with Major and Minor								
3	Major 0 (3T+1P)*2		Minor 3 (3T+1P)	2	VSC-2	AEC-2	FP-2, CC-2	22
4	Major 0 (3T+1P)*2		Minor 4 (3T+1P)	2	SEC-2	AEC-2	CEP-2, CC-2	22
Total	16		8	4	4	4	4	84
Exit option: award of UG Diploma in Major with 84 credits and an additional 4 credit Core NSQF course/ Internship or Continue with Major and Minor								
5	DSC (3T+1P)*3	DSE (3T+1P)	Minor 2 (3T+1P)		VSC-2-Major		CEP/FP-2	22
6	DSC (3T+1P)*3	DSE (3T+1P)	Minor 2 (3T+1P)				OJT-4	22
Total	24	8	8		2		6	84

Dr. Sucheta Ketkar welcomed the Board members. Leave of absence was granted to Dr. Sandhya Dalvie.



Agenda No. 1:

To seek approval for the implementation of a new credit structure for the Four-Year Undergraduate Program (B.A., B.Sc.) in accordance with the NEP2020 guidelines, starting from the Academic Year 2023-24.

Dr. Sucheta Ketkar explained the structure of the new credits and courses to be adopted by the college under NEP2020 guidelines. The board approved the structure.

Agenda No. 2:

To seek approval for the syllabus of the first-year (Semester I and II) courses, including Major Courses, Minor Courses, Generic Elective or Open Elective Courses, Ability Enhancement Courses, Skill Enhancement Courses, and Vocational Skill Enhancement Courses, Discipline specific Core Courses and Discipline specific elective Courses (whichever is applicable) for both the Undergraduate and Postgraduate Programs (Semester I and II) for the Academic Year 2023-24.

The Head informed the members that the department of Statistics will be conducting courses under Major courses, VSC, SEC and GE/OE in Semester I and Semester II. The syllabus was displayed and read for all the courses. The syllabus was passed by all the members.

The titles of the courses are as follows:

1. Discipline specific Core Course (DSC) for Semester I : Descriptive Statistics (3 credits for theory and 1 credit practical)
2. Vocational Skill Enhancement Course (VSC): Data Condensation and Visualisation Techniques (1 credit theory and 1 credit practical)
3. Skill Enhancement Course (SEC) : Introduction to R programming (1 credit theory and 1 credit practical)
4. Generic Elective or Open Elective Course (GE) : Basic Statistics (Level 1) and Basic Statistics (Level 2) (2 credit theory courses)



Agenda No. 3:

To seek approval for the modifications in the assessment methods, including changes to the question paper pattern for internal and semester-end examinations, as well as the evaluation process for Semester End examinations (Theory/Practical, as applicable).

Dr. Ketkar told the members of the board that the college had not given the instructions for the modalities of assessment. We will seek the permission over the email once the modalities are decided by the college.

Agenda No. 4:

Any other matter with the permission of the Chair.

Meeting ended with Dr. Sucheta thanking all the members for sparing their time and providing valuable inputs.



17/6/2023
Dr. Sucheta Ketkar
Head, Department of Statistics



S.P.Mandali's
RAMNARAIN RUIA AUTONOMOUS COLLEGE, MUMBAI-19
Minutes of the online meeting of the Board of Studies in Statistics

Date: 19th February 2024

Day: Monday

Time: 4.00pm

Venue: Online meeting on Google Meet: <https://meet.google.com/sbw-dddr-rwz>

Members Present:

Sr. No.	Name of the Member	Designation	Signature
1	Mrs. Pallavi Rege	Associate Professor and Head, Dept. of Statistics, SIES College, Sion	PRESENT
2	Dr. Leena Kulkarni	Assistant Professor & Program Chairperson, M.Sc. Applied Statistics & Analytics, Sunandan Divatia School of Science, NMIMS University, Mumbai	PRESENT
3	Dr. B.G. Kore	Principal, Adarsh College, Vita	PRESENT
4	Ms. Sandhya Dalvie	Lead Data Scientist, Accenture	PRESENT
5	Ms. Vardhini Deshmukh	Manager, Analytics, Business Intelligence Unit, Kotak Mahindra Bank	PRESENT
6	Dr. Sucheta Ketkar	Associate Professor and Head, Dept of Statistics	PRESENT
7	Dr. Sujata Suvarnapathki	Associate Professor, Dept of Statistics	PRESENT
8	Dr. Ashwini Deshpande	Assistant Professor, Dept of Statistics	PRESENT
9	Mr. Saleem Panwale	Assistant Professor, Dept of Statistics	PRESENT
10	Mrs. Aruna Ganu	Assistant Professor, Dept of Statistics	PRESENT
11	Ms. Tanvi Koyande	Assistant Professor, Dept of Statistics	PRESENT





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SYBSc						
Semester	Course	Credits	Title	Contents-Unit I	Contents-Unit II	Contents-Unit III
III	DSC-1 (Discipline Specific Course)	4 (3T+1P)	Probability Distributions	Some Standard Discrete Distributions with MGF and CGF	Continuous random variable, Bivariate Continuous distribution, Rectangular, Exponential	Testing of hypothesis
III	DSC-2 (Discipline Specific Course)	4 (3T+1P)	Theory of Sampling	SRSWOR, SRSWR	STRS-Stratified Random Sampling	Ratio and Regression Estimators, Systematic sampling
III	Minor	4 (3T+1P)	Theory of Sampling	SRSWOR, SRSWR	STRS-Stratified Random Sampling	Ratio and Regression Estimators, Systematic sampling
III	Vocational Skill Enhancement Course	2 (Practic Only)	Introduction to Excel, Use of Excel	Introduction to Excel, Use of Excel	Power BI	—

16:16 | Statistics Department BOS meeting AY20...

On behalf of the Head of the Department Dr. Sucheta Ketkar, Dr. Sujata Suvarnapathki welcomed the Board members.

Agenda Item No. 1:

To confirm the minutes of the previously held BOS Meeting.

The members of the Board approved the minutes of the previous Board of Studies meeting held on 17th June 2023.



Agenda Item No. 2:

To seek approval for the changes in the syllabi as per NEP2020 structure for SYBA/SYBSc (Semester III and IV for the year 2024-25)

Dr. Sujata Suvarnapathki explained the structure of the new credits and courses to be adopted by the college under NEP2020 guidelines. The board approved the structure.

Dr. Suvarnapathki informed the members that the department of Statistics will be conducting courses under Major-Minor courses, VSC and SEC in Semester III and Semester IV. The unit wise pattern was displayed and read for all the courses.

Dr. Leena Kulkarni suggested to change the title of Discipline Specific Course (DSC1) for Semester III to "Probability Distributions and testing of Hypothesis". Mrs. Pallavi and Dr. Kore agreed to modify the title to "Probability Distributions and hypothesis testing."

Resolved that: Title of Discipline Specific Course (DSC1) for Semester III will be "Probability Distributions and hypothesis testing."

Dr. Leena raised concern that the Minor Paper for semester III (Theory of Sampling) will be difficult for Mathematics and Economics students to understand. Mrs. Pallavi mentioned that, as introduction to sampling is already done at FY level it will not be a problem.

Resolved that: Theory of Sampling will be offered as Minor for Semester III

Dr. Sujata Suvarnapathki put forth the syllabus of VSC Introduction to Excel and Power BI, and requested suggestions from the Board members for all units.

Dr. Leena inquired whether the Power BI sessions would be held directly in the lab. Ms Vardhini Deshmukh thought the contents of the proposed syllabus are good. Ms. Sandhya Dalvie suggested to introduce creating dash board in Excel as well as Power BI.

Resolved that: The VSC syllabus was passed by all the members after incorporating the proposed changes.

Dr. Leena Kulkarni suggested to change the title of Discipline Specific Course (DSC1) for Semester IV. Mrs Pallavi Rege and Dr Kore suggested keeping the same title.

Resolved that: Title of Discipline Specific Course (DSC1) for Semester IV will be "Probability and Sampling Distributions."

The titles of the courses for SYBSc are as follows:

1. Discipline Specific Course (DSC1) for Semester III: Probability Distributions and hypothesis testing (3 credits for theory and 1 credit practical)
2. Discipline Specific Course (DSC2) for Semester III: Theory of Sampling (3 credits for theory and 1 credit practical)
3. Minor for Semester III: Theory of Sampling (3 credits for theory and 1 credit practical)
4. Vocational Skill Enhancement Course (VSC) for Semester III: Introduction to Excel and Power BI (2 credit practical)



5. Discipline Specific Course (DSC1) for Semester IV: Probability and Sampling Distributions (3 credits for theory and 1 credit practical)
6. Discipline Specific Course (DSC2) for Semester IV: Analysis of Variance and Design of Experiments (3 credits for theory and 1 credit practical)
7. Minor for Semester IV: Analysis of Variance and Design of Experiments (3 credits for theory and 1 credit practical)
8. Skill Enhancement Course (SEC) for Semester IV: Linear Programming (1 credit theory and 1 credit practical)

The titles of the courses for SYBA are as follows:

1. Minor for Semester III: Theory of Sampling (3 credits for theory and 1 credit practical)
2. Minor for Semester IV: Analysis of Variance and Design of Experiments (3 credits for theory and 1 credit practical)
3. Skill Enhancement Course (SEC) for Semester IV: Linear Programming (1 credit theory and 1 credit practical)

The syllabus was passed by all the members

Agenda Item No. 3:

To seek approval for the changes in the Modalities of assessment (Internal Class tests/Assignments etc.), if any.

Dr. Suvarnapathki told the members of the board that there is no change in the Modalities of assessment.

Agenda Item No. 4:

To seek suggestion on Field Projects/CEP (Community Engagement Programs) to be conducted in Semester III and IV (2024-25)

Mrs. Pallavi suggested project including data collection, analysis and presentations that will be beneficial for the community can be offered under Field Projects/CEP.

Ms. Sandhya Dalvie queried whether internships can be offered as field projects. Dr. Sujata explained that internships cannot be considered as a Field Project because FP will have 2 credits i.e., 30 hours and finding such internships are not feasible. Dr. Sujata further added on "Aaple Prashna Aple Vidnyan (APAV)" an initiative run by IIT. Mr. Saleem explained that under APAV the students will identify any unsolved problem faced by the society. Dr. Sujata supported the same.

Agenda Item No. 5:

To seek approval for the new certificate courses, if any (for 2024-25)

Dr. Suvarnapathki informed the members of the board that the Department of Statistics is not proposing any new certificate courses for the year 2024-25.

Agenda Item No. 6:

Any other matter with the permission of the chair.

No suggestions.



Dr. Sujata Suvarnapathaki concluded the meeting by thanking all the members for sparing their time and providing valuable inputs.



Dr. Sucheta Ketkar

Head, Department of Statistics

