

Department of Statistics MSc - Statistics

Curriculum Feedback Analysis and Action Taken Report

AY 2021-22

CHRIST (Deemed to be University), Bangaluru – 29. Karnataka, India www.christuniversity.in

Introduction:

At the end of every Academic Year, the feedback will be taken from all the stake holders to enhance the quality of education with effective curriculum structure to cater the needs of all the stakeholders. The stakeholders were requested to submit their feedback based on the criterion as mentioned below with a rating scale of 5.Excellent 4.Good 3.Satisfactory 2.Averag and 1.Needs to Improve. In addition, the suggestions for the curriculum enrichment were also collected.

Student Feedback

| SNO | Criterion |
|-----|---|
| 1 | Does the content of the curriculum satisfy the stated objectives and learning outcomes? |
| 2 | Does the curriculum cover advanced topics? |
| 3 | Whether the curriculum enhances your knowledge and skills in the relevant domain? |
| 4 | Is the curriculum effective in developing critical/ analytical thinking? |
| 5 | Are the text books and reference materials relevant to the content of the curriculum? |
| 6 | Does the curriculum orient towards higher education? |
| 7 | Does the curriculum enable the students to apply their knowledge in real life situations? |
| 8 | Is employability given weightage in the design and development of curriculum? |
| 9 | Does the curriculum promote self-study and attitude of research? |
| 10 | Does the curriculum meet your overall expectations? |

Faculty Feedback

| SNO | Criterion |
|-----|--|
| 1 | Does the curriculum satisfy the stated objectives and learning outcomes? |
| 2 | Do you have continuous processes to propose, modify, suggest and incorporate new topics in the curriculum? |
| 3 | Is the curriculum effective in developing independent thinking? |
| 4 | Does the departmental level expert committee meet to review the curriculum? |
| 5 | Does the curriculum enhance your knowledge in the subject area? |
| 6 | Does the curriculum enable the students to apply their knowledge in real life? |
| 7 | Does the curriculum demand the teachers for research inclusive teaching? |

Alumni Feedback

| SNO | Criterion |
|-----|---|
| 1 | Is the curriculum updated on a regular basis depending on the current trends and advanced topics? |
| 2 | Does the curriculum orient the students towards higher education? |
| 3 | Does the curriculum provide employability weightage? |
| 4 | Does the curriculum meet the expectations of the industry? |
| 5 | Does the curriculum enable the student to connect the knowledge to real life application? |
| 6 | Does the curriculum encourage entrepreneurship? |
| 7 | Do you think that the curriculum motivates the students for research and development? |

Industry Feedback

| SNO | Criterion |
|-----|--|
| 1 | Is the curriculum aligned with the objectives of the programme? |
| 2 | Does the curriculum cover advanced topics and current trends? |
| 3 | How would you rate the relevance of the electives offered in the curriculum? |
| 4 | Is employability given weightage in the design and development of curriculum? |
| 5 | Does the curriculum meet the expectations of the industry? |
| 6 | Does the curriculum cater to the enhancement of skills of the students with respect to the industry needs? |

Parents Feedback

| SNO | Criterion |
|-----|---|
| 1 | Does the curriculum orient the students towards higher education? |
| 2 | Is employability given weightage in the design and development of the curriculum? |
| 3 | Is the curriculum designed to have a component on value based education? |
| 4 | Does the curriculum have components to serve the needs of the society? |
| 5 | Does the curriculum promote self-study and attitude of research? |
| 6 | Does the curriculum help the students to enhance their personality? |

Analysis (AY 2021-22)

To facilitate the feedback process, the above questions were included in a Google form and sent to the stakeholders to submit their responses with suggestions. The responses were categorised (in %) based on their rating as mentioned in the following tables.

Table 1: Students Feedback on curriculum

| S.No | Criterion % of Satisfaction level | | | l | | |
|------|---|-------|-------|-----|----|----|
| | | 5 | 4 | 3 | 2 | 1 |
| 1 | Does the content of the curriculum satisfy the stated objectives and learning outcomes? | 94% | 3% | 3% | 0% | 0% |
| 2 | Does the curriculum cover advanced topics? | 96% | 2% | 2% | 0% | 0% |
| 3 | Whether the curriculum enhances your knowledge and skills in the relevant domain? | 96.5% | 2.5%` | 1% | 0% | 0% |
| 4 | Is the curriculum effective in developing critical/ analytical thinking? | 96% | 4% | 0% | 0% | 0% |
| 5 | Are the text books and reference materials relevant to the content of the curriculum? | 99% | 1% | 0% | 0% | 0% |
| 6 | Does the curriculum orient towards higher education? | 96% | 2% | 2% | 0% | 0% |
| 7 | Does the curriculum enable the students to apply their knowledge in real life situations? | 97% | 2% | 1% | 0% | 0% |
| 8 | Is employability given weightage in the design and development of curriculum? | 98% | 2% | 0% | 0% | 0% |
| 9 | Does the curriculum promote self-study and attitude of research? | 97% | 3% | 0% | 0% | 0% |
| 10 | Does the curriculum meet your overall expectations? | 99% | 1% | 0%` | 0% | 0% |

Table 2: Teachers Feedback on curriculum

| S.No | Criterion | % of Satisfaction level | | | el | |
|------|--|-------------------------|-----|----|----|----|
| | | 5 | 4 | 3 | 2 | 1 |
| 1 | Does the curriculum satisfy the stated objectives and learning outcomes? | 99% | 1% | 0% | 0% | 0% |
| 2 | Do you have continuous processes to propose, modify, suggest and incorporate new topics in the curriculum? | 98% | 2% | 0% | 0% | 0% |
| 3 | Is the curriculum effective in developing independent thinking? | 99% | 1%` | 0% | 0% | 0% |
| 4 | Does the departmental level expert committee meet to review the curriculum? | 98% | 2% | 0% | 0% | 0% |
| 5 | Does the curriculum enhance your knowledge in the subject area? | 98% | 1% | 1% | 0% | 0% |

| 6 | Does the curriculum enable the students to apply their knowledge in real life? | 99% | 1% | 0% | 0% | 0% |
|---|--|------|----|----|----|----|
| 7 | Does the curriculum demand the teachers for research inclusive teaching? | 100% | 0% | 0% | 0% | 0% |

Table 3: Industry Feedback on curriculum

| S.No | Criterion | % of Satisfaction level | | | | |
|------|--|-------------------------|-----|----|----|----|
| | | 5 | 4 | 3 | 2 | 1 |
| 1 | Is the curriculum aligned with the objectives of the programme? | 99% | 1% | 0% | 0% | 0% |
| 2 | Does the curriculum cover advanced topics and current trends? | 98% | 2% | 0% | 0% | 0% |
| 3 | How would you rate the relevance of the electives offered in the curriculum? | 99% | 1%` | 0% | 0% | 0% |
| 4 | Is employability given weightage in the design and development of curriculum? | 100% | 0% | 0% | 0% | 0% |
| 5 | Does the curriculum meet the expectations of the industry? | 99% | 1% | 0% | 0% | 0% |
| 6 | Does the curriculum cater to the enhancement of skills of the students with respect to the industry needs? | 99% | 1% | 0% | 0% | 0% |

Table 4: Parents Feedback on curriculum

| S.No | Criterion | % of Satisfaction level | | | | |
|------|---|-------------------------|-----|----|----|----|
| | | 5 | 4 | 3 | 2 | 1 |
| 1 | Does the curriculum orient the students towards higher education? | 97% | 2%` | 1% | 0% | 0% |
| 2 | Is employability given weightage in the design and development of the curriculum? | 98% | 2% | 0% | 0% | 0% |
| 3 | Is the curriculum designed to have a component on value based education? | 99% | 1%` | 0% | 0% | 0% |
| 4 | Does the curriculum have components to serve the needs of the society? | 97% | 3% | 0% | 0% | 0% |
| 5 | Does the curriculum promote self-study and attitude of research? | 99% | 1% | 0% | 0% | 0% |
| 6 | Does the curriculum help the students to enhance their personality? | 99% | 1% | 0% | 0% | 0% |

Table 5: Overall satisfaction of stakeholders towards the curriculum

| Stakeholders | Total no. of Responses | Satisfied % | Good % | Excellent % |
|--------------|---------------------------|-------------|--------|-------------|
| Students | 33 | 0 | 1 | 99 |
| Teachers | 5 | 0 | 0 | 100 |
| Industry | 6 | 0 | 2 | 98 |
| Parents | 12 | 0 | 1 | 99 |

From the above tables, the majority of the students expressed that the curriculum is good to enhance their employability skills with the latest trends and technologies in statistics and data science. The scores of the faculty's shows that the effectiveness of the curriculum structure above the satisfactory level. The feedback and suggestions from our Alumni is always significant, as their suggestions increasing the scope for introducing new courses related to contemporary areas. From the responses of the industry experts, it realized that the curriculum structure is Excellent. Also, they suggested introducing more applied statistics courses which are in demand in the industry. It was also noted that the industry experts also felt that the curriculum is fare enough to increase the opportunities of employment. The scores shows that, the Parents also satisfied with curriculum which facilitates the needs of their wards for their higher studies and employment.

Suggestions Provided by the Stakeholders:

Some students were mentioned that, emphasis should be given on practical implementation of concepts. Also, few students suggested that, the assignment and other CIA components should include more aspects of critical thinking and practical implementation. Industry experts suggested the incorporation applied statistics papers such as Design of Experiments, Stochastic Process and queuing theory and biostatistics. Some of the faculty members suggested their course for the revision and proposed new elective courses to be introduced.

Action Taken:

Based on the feedback and suggestions receive from the Students, Faculty, Industry and Parents, the following changing have been proposed and discussed in the Board of Studies meeting.

The following core and elective core courses have been revised with incorporation of practical components along with theory for the statistics courses in M.Sc (Statistics) Programme.

| MST131 | Probability Theory |
|---------|---|
| MST132 | Distribution Theory |
| MST133 | Matrix Theory and Linear Models |
| MST134 | Research Methodology and LaTeX |
| MST171 | Sample Survey Designs |
| MST172 | Statistical Computing using R |
| MST231 | Statistical Inference I |
| MST232 | Stochastic Processes |
| MST233 | Categorical Data Analysis |
| MST271 | Regression Analysis |
| MST272 | Statistical Computing using Python |
| MST273A | Principles of Data science and Data Base Techniques |
| MST273B | Survival Analysis |
| MST273C | Optimization techniques |

The new courses with lab components were introduced in M.Sc (Statistics) Programmes.

| MST331 | Statistical Inference II |
|---------|---|
| MST332 | Multivariate Analysis |
| MST371 | Time Series Analysis |
| MST372A | Statistical Machine Learning |
| MST372B | Biostatistics |
| MST372C | Reliability Engineering |
| MST373A | Numerical Analysis |
| MST373B | Non-parametric methods |
| MST373C | Theory of Games and Statistical Decisions |
| MST431 | Advanced Operations Research |
| MST432 | Design and analysis of experiments |

| MST433 | Statistical Quality Control |
|---------|---------------------------------------|
| MST471A | Neural Networks and Deep Learning |
| MST471B | Spatial Statistics |
| MST471C | Big Data Analytics |
| MST472A | High dimensional Statistical Analysis |
| MST472B | Statistical Genetics |
| MST472C | Actuarial methods |
| MST473A | Bayesian Statistics |
| MST473B | Clinical Trials |
| MST473C | Risk Modeling |



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