



Solving digital course development challenges through Collaborative Course Production

Background

The Indian Statistical Institute (ISI), a unique institute specialising in research and education for statistics and related disciplines, stepped into a journey to digitise its Post Graduate Diploma in Applied Statistics (PGDAS) programme for the Coursera platform.

ISI partnered with Mind and Matter (M&M) for pre-production, authoring, post-production and final delivery of the programme to the platform.

About the programme

With 18 comprehensive courses, 270 hours of asynchronous video, the syllabi of the PGDAS programme included:

First Semester: Compulsory Courses

- Basic Statistics
- Basic Probability
- Statistical Methods
- Survey Sampling
- Introduction to the Official Statistical System
- Statistics and Economy

Second Semester: Specialisations

Official Statistics Specialisation

- Management of Data
- Advanced Survey Sampling
- Population and Social Statistics
- National Accounts Statistics and Price Indices
- Sectoral Statistics
- Monetary, Financial System and Foreign Trade Statistics

Data Analytics Specialisation

- Introduction to R and Python
- Multiple Regression
- Advanced Regression
- Time Series Analysis and Forecasting
- Multivariate Statistics
- Statistical Machine Learning

The online programme fees: USD 6000

Challenges

As higher education globally began pivoting to digital transformation, this also required colleges

and universities to expand their access towards online learning platforms like Coursera. This adaptation demands a focus not just on the content delivery mechanism, but also on the technical tools and deep expertise in the digitisation standards.

While ISI's faculty are globally renowned domain experts in their fields, adapting the academic content to online was the primary challenge. The ISI content development team's limited exposure to Coursera production and authoring, and the other challenges were:

1. Lack of Platform Orientation:

Training the ISI faculty and support team with the platform, considering the ISI faculty team's core focus is on teaching rather than managing the platform, handling conflicting schedules for recording of videos and other digital transformation activities of classroom lectures.

Complex mathematical expressions with extensive use of LaTeX, which had to be adapted to the Coursera platform.

Lack of technical knowledge of how to author quizzes and assignments from LaTeX-generated PDFs'

2. Digital Adoption:

Transform and adapt the classroom lectures to online platform

3. Inexperience with Online platforms:

Orientation of the facilities with no past experience of the platform with online content standardisations

4. Lack of in-house recording capability:

No in-house capability for the production of video lectures

Solution

Mind and Matter engaged with ISI as an edtech translator and production partner, supporting ISI through

1. Instructional design:

Create an appropriate flow of the core elements of each subject so using the best techniques like graphical flows, assignments, and quizzes to help learners achieve the objectives

2. Project Management:

ISI Faculty and Support team training, induction and orientation program. Faculties and Support team were trained about the pedagogy and the platform so that they are aware of the progress. Guide the entire ISI team to create pre-production items, which included basic lectures, PPTs' and Scripts

3. Pre-Production

Creation and adoption of scripts to asynchronous video lectures

Building the scripts to suit 5-7 minutes videos

Instructional Design work to enhance the visual appeal and refining the content to be more engaging for the students

4. Production

Setup Recording Studio in the campus for ease of recording

Recording of lectures

Scheduling of lecture recording in the calendars

5. Post Production

Audit all lecture videos

Editing, animation, text inputs to create the final output

6. Platform Authoring

What Stood Out

ISI appreciated several aspects of M&M's engagement including:

1. **Exceptional Responsiveness & Quality:** Due to faculty leaders teaching and classroom priorities, there were slippages in the schedules. M&M showed adaptability to drive the project to successful deliverable and outcomes by resolving such scenarios
2. **Collaborative Problem-Solving:** The M&M team remained solution-oriented in the face of evolving requirements and technical challenges.
3. **Courteous Communication:** Even during periods of miscommunication or logistical challenges, M&M maintained a professional approach and tone.
4. **Adoptability and flexibility:** Flexibility of adapting to shifting timelines

Tools, platform, languages used

- OverLeaf
- LaTeX
- Coursera Labs for technical assessments
- Python

Outcome

The collaboration between ISI and Mind and Matter has been productive and positive. With 18 courses successfully delivered on Coursera, this partnership helped ISI take a significant step toward delivering high-quality online programmes through the platform.



This particular programme was launched and is a rolling success on the coursera platform

Link of the programme:

<https://www.coursera.org/degrees/statistics-data-analytics-pgdip-isi/admissions>

The PGDAS programme is currently running its 6th cohort with a total learner count of over 450 students and generated USD 27 million in revenue.

With the successful performance of the programme in the Coursera platform, ISI has stepped into a further enhancement of their courses using Mind and Matter's expertise.