Vivekanand Education Society's College of Arts, Science & Commerce (Autonomous)

Department of Data Science & Data Analytics
Minutes of the 1st BOS Meeting

The first meeting of BOS of the Data Science & Data Analytics Department was held on 6th August 2022 between 1 pm to 2.30 pm. The following members were present for the meeting -

1. Chairperson (HOD / Coordinator): Mr. Kamlakar Bhopatkar
2. University Level Representative:

   Dr. Manoj Devare, School of Information Technology, Amity University, Mumbai

3. External Subject Expert Member:

   Mr. Sameer Kanse, Head of Product Development & Innovation Tata Communications

4. Subject Expert (R&D/ Industry):

   Ms. Sridevi Vadapalli Deputy General Manager, Big Data and Advanced Analytics, DTICI

5. PG Alumnus:

   Mr. Smitraj Raut, Senior Manager-Data Science, EXL Services

6. The entire faculty of each specialization:
   i. Mr. Gokul Choudhary
   ii. Dr. Madhavi Vaidya
   iii. Mr. Sujit Chavan
   iv. Ms. Laxmi Tiwari
   v. Ms. Rajashree Date

The meeting was planned with the following agenda -
1. Welcome and Introduction of all the BOS members.
2. To discuss and approve the Syllabus.
3. To discuss and approve the Scheme of Course Evaluation.
4. To discuss and approve suggested techniques for Continuous Internal Evaluation.
5. To discuss and approve Question Paper Pattern (For Theory & Practical).
6. To discuss and approve the list of Examiners and Moderators for the assessment of the End Semester Exam.
7. To discuss methodologies for innovative teaching and evaluation techniques.
8. Any other matter with the permission of the chair.

The proceedings of the meeting along with the resolutions adopted are as follows -

Agenda 1 - Welcome and Introduction of all the BOS members.

Mr. Kamlakar Bhopatkar welcomed and gave a brief introduction of all the members.

Agenda 2 - To discuss and approve the Syllabus.

(i) Mr. Kamlakar Bhopatkar shared the background of how the idea of the course was thought of and how it was adapted and implemented by the Department of Computer Science. He explained what are the minimum academic requirements to take admission(like the course is open for all XIIth Arts/Commerce/Science students who have studied Mathematics, minimum overall marks and mathematics marks should be) to this course and why. He explained credit calculations. He then shared the subject titles of the three-year syllabus.

Sem1	Sem2	Sem3	Sem4	Sem5	Sem6
Introduction to Operating System and Networking Concepts	DBMS & NoSQL	Algorithms and Data Structures	Object Oriented Programming using Java	Data Analytics & Visualization	Deep Learning and Neural Networks
Introduction to Programming using Python	Advanced Python	Introduction to Data Science	AI & Machine Learning	Cyber Security	Digital Marketing and Web Intelligence
Mathematics for Data Science	Research Methodology	Advanced Statistical Methods	Software Engineering	Natural Language Processing	Bioinformatics
Descriptive Statistics	Probability and Inferential Statistics	Data Warehousing and Data Mining	Cloud Computing	Big Data & BigData Technologies	Blockchain
Web Technologies	Soft Skill	IoT	Mobile Programming	Principles of Management and Entrepreneurship	Green Computing

(ii) Mr. Kamlakar then shared that the syllabus of FYBSc Data Science & Data Analytics should be sanctioned first and that is what would be implemented and started in the coming days. Syllabus of SY & TY are open for discussion and can be modified subsequently in the years 2022-23 & 2023-24.

(iii) The detailed syllabus of FYBSc DSDA and credit calculation was then presented and explained to the members.

Following doubts/queries were discussed and resolved in the discussion -

By Manoj Sir

a. OS and Networking are combined in 3 credits. It may be divided into two separate courses with separate credits allocation.
b. We need to decide the programming language / tools to be used for the practical work of Mathematics for Data Science.
c. Good coordination requires between the mathematics faculty and programming faculty members in day-to-day lecture session for better understanding of program and scope of mathematics

By Sridevi Madam

a. Basics of database should be covered in NoSQL subject.

Some general suggestions for overall three years -

By Manoj Sir

a. I found that there is no provision on flexibility of selecting the Electives / concentration electives.
b. You may add summer internship in between the end of even Sem and beginning of odd sem. The evaluations will be done in odd sem.
c. Internship should be arranged between the semester break

By Faculties to Experts

a. How much Discrete Mathematics is needed in the syllabus of mathematics for data science.

All these doubts were discussed and solved in the meeting.

Agenda 3 - To discuss and approve the Scheme of Course Evaluation

Mr. Kamlakar explained about additional 12 credits to be acquired by the students of Autonomous courses in addition to the 120 credits that they would get from the course.

Additional Credits (2 credits per year, 1 per semester)

As proposed at the college level, each student is supposed to acquire two additional credits per year indicating approx. 1 credit per year (where 1 credit means minimum 15 hours of work). The teachers proposed that the department would like to assign credits for their work in the field of computer science technology in any one of the following -

- A Certificate course beyond syllabus
- A research paper presentation/publication
- Contribution in Department activities like TecKnow Magazine / VIHAAN
- Participation & Presentation in Software Development Competition
- Internship

This addressed the doubts of Mr Manoj sir regarding the credit point calculations.

Agenda 4 - To discuss and approve suggested techniques for Continuous Internal Evaluation

Mr. Kamlakar explained the internal evaluation scheme which would be adapted by the department -

Internal Evaluation for Theory Courses – 25 Marks

(i) Mid-Term Class Test– 15 Marks

- It should be conducted using any learning management system such as Moodle (Modular object-oriented dynamic learning environment)
- The test should have 15 MCQ's which should be solved in a time duration of 30 minutes.

(ii) Assignment / Presentations – 10 Marks (Minimum 5 hours of work)

- Assignment - Any subject-related work in soft copy format comprising of case study, solutions to multiple challenging problems beyond journal, study and review of published research paper from a reputed journal
- Presentation - Any subject-related work (can be done in a group) comprising of mini-project, explaining topics beyond syllabus, presenting any subject-related topic into innovative way (like skit or video)
- Proof of the assignment/presentation should be maintained.

This addressed Sameer Sir's doubts regarding the inclusion of Case study-based learning system as well as making internal assessment more productive, related to real life industry-based problem and solution approach

Agenda 5 - To discuss and approve Question Paper Pattern (For Theory & Practical)

External Examination for Theory Courses – 75 Marks

Duration: 2.5 Hours

Theory question paper pattern:

All questions shall be compulsory with internal choice within the questions. Each Question may be subdivided into sub-questions as a, b, c, d, e etc. & the allocation of Marks depends on the weightage of the topic.

All questions are compulsory.			
Question	Based on	Options	Marks
Q.1	Unit I	Any 3 out of 5	15
Q.2	Unit II	Any 3 out of 5	15
Q.3	Unit III	Any 3 out of 5	15
Q.4	Unit IV	Any 3 out of 5	15
Q.5	Unit V	Any 3 out of 5	15

Manoj Sir suggested to set the question paper based on Bloom's Taxonomy approach.

III. Practical Examination – 50 Marks

Each core subject carries 50 Marks

40 marks + 05 marks (journal) + 05 marks (viva)

Duration: 2 Hours for each practical course.

- Minimum 80% practical from each core subjects are required to be completed.
- Certified Journal is compulsory for appearing at the time of Practical Exam

- The final submission and evaluation of journals in electronic form using a Learning Management System / Platform can be promoted by college.

Agenda 6 - To discuss and approve the list of Examiners and Moderators for the assessment of the End Semester Exam.

Mr. Kamlakar shared that following have been proposed at college level and the department would like to adapt the same -
(i) No moderators for Theory Examinations
(ii) One External from nearby colleges for TY Practical Examinations
This was passed without any query.

Agenda 7 - To discuss methodologies for innovative teaching and evaluation techniques.

Regarding this agenda, some points got covered in the previous agendas. Mr. Kamlakar mentioned that the course would be empowered by GlobalGyaan which would provide a 100 hours course to the students as a part of syllabus which would be conducted by industry experts.

Agenda 8 - Any other matter with the permission of the chair.
None

It was decided that the syllabus would be sanctioned by taking into account all the suggestions given by the expert.

The meeting ended with a vote of thanks by the chairman.