

B-27, Knowledge Park – III, Greater Noida, Uttar Pradesh - 201308 Approved by: All India Council for Technical Education (AICTE), New Delhi Affiliated to: Dr. A. P. J. Abdul Kalam Technical University (AKTU), Lucknow

Name of the Subject: Data Structure Faculty Name: Ms. Swati Tyagi Innovation Practices: Flipped Classroom Approach Students Involved: 3<sup>rd</sup> Semester

The flipped classroom approach is an innovative teaching strategy where the traditional lecture format is inverted. In this model, students engage with instructional content outside of class, usually through videos, online resources, or assigned readings, and then use in-class time for collaborative, hands-on activities that involve deeper application of the concepts.

It promotes deeper understanding of complex concepts, fosters critical thinking, improves problem-solving skills, and better prepares students for real-world database challenges. The increased engagement, hands-on learning opportunities, and personalized instruction contribute to higher retention rates and better performance. Ultimately, the flipped classroom not only makes learning more interactive and collaborative but also better equips students with the skills needed for industry.



