INNOVATIVE TEACHING-LEARNING (PEDAGOGY) REPORT

Title of the Activity	**Bio-Informatics and Biostatistics**
Subject	**BT204E, Computational Biology and Biostatistics**
Department	**Biotechnology Engineering**
Academic Year	**2023-2024**
Name of the Faculty	**Dr. Muthu Sankar Aathi**
Objectives	To provide students with an integrated understanding of fundamental concepts and techniques in bioinformatics and biostatistics, enabling them to apply computational and statistical methods to analyze biological data, interpret results meaningfully, and explore applications in genomics, molecular biology and healthcare.
Course Outcomes Addressed	✓ **CO1:** The activity introduces core bioinformatics concepts and highlights real-world applications, fulfilling the foundational learning. ✓ **CO2:** Hands-on or theoretical components in the activity can expose students to sequence alignment tools and scoring matrices. ✓ **CO4**: The biostatistics section will involve statistical data analysis and interpretation, directly addressing
Learning Outcome	✓ Describe key concepts in bioinformatics and biostatistics, including their interdisciplinary relevance and practical applications. ✓ Apply alignment methods and scoring matrices to compare biological sequences.

	✓ Analyze biological datasets using statistical measures to draw meaningful conclusions.