



SWAMI VIVEKANANDA UNIVERSITY

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Student Skill development Workshop on “Next Generation Sequencing and Bioinformatics”



Department of Microbiology

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Vision:

To create a generation of skilled, innovative, and environmentally conscious students equipped to tackle real-world challenges. We envision a future where students are empowered with technical, entrepreneurial, and sustainability-driven skills to contribute meaningfully to society and drive positive change.

Mission:

To provide hands-on learning experiences, mentorship, and capacity-building opportunities that enhance students' critical thinking, problem-solving, and leadership abilities. Through interactive workshops, industry exposure, and project-based learning, we aim to bridge the gap between theoretical knowledge and practical application. Our mission is to nurture creativity, foster sustainability, and equip students with the tools to excel in their careers and communities.

Participants Details:

B.Sc. Biotechnology and Microbiology Semester 6 students from various colleges across South Bengal actively participated in the event, engaging in hands-on learning, discussions, and skill-building activities. Their enthusiasm and curiosity contributed to meaningful exchanges, fostering innovation and practical understanding of biotechnology applications for addressing real-world scientific and environmental challenges.

Name of the Participants	Name of the College	Honours Subject
Ananya Marick	Bidhannagar College	Zoology
Arpita Ghosh	Hooghly Women's College	Microbiology
Bikash Murmu	City College Kolkata	Zoology
Debapriya Roy	Bidhannagar collage	Zoology
FARHIN DEWAN	Hooghly Women's College	Microbiology
Md Reaz Mondal	Bidhannagar collage	Zoology
Meghamitra Modak	Ranaghat College	Zoology
Nibedita Pal	Hooghly women's college	Microbiology
Payel Hanra	Hooghly Women's College	Microbiology
Riktha Karmakar	Hooghly Women's College	Microbiology
Sainika Saren	Hooghly women's college	Microbiology
Samriddhi Singh	City College	Zoology
Shuvadeep Sen	Bidhannagar College	Zoology
Tithi Malik	Hooghly Women's College	Microbiology

Speaker and Topic Details:

Dr. Debjit De, Assistant Professor, Dept. of Biotechnology, Swami Vivekananda University	Next Generation Sequencing
Dr. Semanti Ghosh, Assistant Professor, Dept. of Biotechnology, Swami Vivekananda University	Computational Biology

Workshop: Student Skill Development Workshop on Computational Biology and Next-Generation Sequencing

This workshop aims to equip students with essential skills in ‘Next Generation Sequencing (NGS) and Bioinformatics’, focusing on data analysis, genome assembly, and bioinformatics tools. Participants will gain hands-on experience with sequencing technologies, data interpretation, and their applications in healthcare and research. Experts will provide insights into cutting-edge genomic advancements, preparing students for careers in biotechnology, medicine, and computational sciences. Designed for beginners and enthusiasts, this workshop bridges the gap between theoretical knowledge and practical implementation. Join us to explore the future of genomics and enhance your computational biology expertise!

Date: 13th June, 2024

Time: 11 AM Onwards



Programme Outcome:

The Skill Development Workshop on ‘Next Generation Sequencing (NGS) and Bioinformatics’ enhanced students’ understanding of bioinformatics tools, genome analysis, and sequencing technologies. Participants gained hands-on experience in data processing, sequence alignment, and genetic variation analysis, strengthening their computational and analytical skills. The workshop provided insights into real-world applications of NGS in genomics, disease research, and personalized medicine. By integrating theoretical knowledge with practical training, the program prepared students for advanced research and industry roles. The workshop fostered critical thinking and problem-solving abilities, empowering participants to contribute to innovations in biotechnology, healthcare, and computational life sciences.

Conclusion:

The Student Skill Development Workshop on ‘Next Generation Sequencing (NGS) and Bioinformatics’ successfully provided participants with essential knowledge and hands-on experience in bioinformatics, data analysis, and sequencing technologies. Through expert-led sessions, students gained insights into genome assembly, sequence alignment, and biological data interpretation. The workshop enhanced their computational and analytical skills, preparing them for advanced research and industry applications. By bridging theoretical concepts with practical implementation, the program empowered students to explore cutting-edge solutions in genomics, personalized medicine, and biotechnology. This experience equipped them with valuable skills to contribute to scientific advancements and the evolving field of computational biology.