

HONOURS CERTIFICATE PROGRAMME PROPOSAL

AY 2023-2024

Department: Caius Research Laboratory

1. **Recent Trends in Research: An interdisciplinary approach**
2. Research Methodology and Analytical Techniques (Advanced Level)

General Information of the Activity	
1.	Department and Hub Caius Research Laboratory Biological Science
2.	Title of the Activity Recent Trends in Research: An interdisciplinary approach
3.	Name of the Professor taking the course and Email address Dr. Priya Sundarrajan Email: priya.s@xaviers.edu
4.	Name/s of the Resource person/s Open to Students of All Disciplines
5.	Name of the Dept Coordinator and Email address Dr. Priya Sundarrajan Email: priya.s@xaviers.edu
6.	Name of the Hub Coordinator and Email address Dr. Priya Sundarrajan Email: priya.s@xaviers.edu
7.	Number of credits for the activity and number of hours one
8.	Fees 750/-
9.	Eligibility SY, TY Students from any faculty
10.	Number of students 20
11.	Duration and Time August to December 2022, 6-7 one – two hours lectures during holidays in online mode

Details of the Activity	
1	Title: Recent Trends in Research: An interdisciplinary approach
2	Learning Objectives: <ol style="list-style-type: none"> a. Introduce students to different areas of research b. Inculcate the spirit of research in students. c. To introduce the students to different techniques in research.
3	Learning Outcomes: After Completing the course, the students will be able to <ol style="list-style-type: none"> a. Appreciate the interdisciplinary approach to research in various disciplines b. Understand some techniques used in research c. Apply the knowledge gained to understand their courses better
4	Description The program is a lecture- workshop series, aimed to introduce the different tools and techniques in frontier areas of Science/Arts and Commerce. An interdisciplinary approach involving Physics, Chemistry, Biology, etc.
5	Evaluation: Continuous, Report at the end of the program
5	Modules if any: Different techniques and fields of biology will be covered: Biotechnology. Immunology, Physics, Chemistry, Humanities and Social Science

General Information of the Activity	
1.	Department and Hub Caius Research Laboratory
2.	Title of the Activity Research Methodology and Analytical Techniques (Advanced Level) Gene Cloning/protein crystallization
3.	Name of the Professor taking the course and Email address Dr. Priya Sundarajan Email: priya.s@xaviers.edu
4.	Name/s of the Resource person/s Dr. Priya Sundarajan, Dr. Vishwas Sarangdhar
5.	Name of the Dept Coordinator and Email address Dr. Priya Sundarajan Email: priya.s@xaviers.edu
6.	Name of the Hub Coordinator and Email address Dr. Priya Sundarajan Email: priya.s@xaviers.edu
7	Number of credits for the activity and number of hours Two, Thirty
8	Fees Rs. 2500/-
9	Eligibility SY, TY Students of Science
10	Number of students 8-10.
11	Duration and Time The course will be conducted during Diwali vacations (Six days – 10 to 5 all days)
Details of the Activity	
1	Title: Research Methodology and Analytical Techniques (Advanced Level)- During Diwali Vacation

2	<p>Learning Objectives:</p> <ul style="list-style-type: none"> • have an understanding of the fundamental principles of research be able to identify, apply and assess principles of scientific experimentation
3	<p>Learning Outcomes:</p> <p>The students who have successfully completed this course should:</p> <ol style="list-style-type: none"> a. be able to design experiments b. Understand the concept and carry out gene cloning c. Understand the concept and carry out protein crystallisation
4	<p>Description:</p> <p>The course involves introducing students to Design of Experiment and application of analytical techniques to research. – Gene cloning/protein crystallization.</p>
5.	<p>Evaluation:</p> <p>Continuous, Design of Experiment and application of analytical techniques, submission of report</p>
6,	<p>Modules if any:</p> <p>None</p>